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**Acknowledgments.**

**Exchange Journals.**

**British.**

Asclepiad ; Brain ; British Medical Journal ; Dublin Medical Journal ; Edinburgh Medical Journal ; Glasgow Medical Journal ; Journal of the Anthropological Institute ; Hospital ; Lancet ; Medical Magazine ; Mind ; Practitioner ; Proceedings of the Society for Psychical Research ; Australasian Medical Gazette.

**American.**

Alienist and Neurologist ; Journal of Insanity ; Journal of Medical Sciences ; Medical and Surgical Bulletin ; Index Medicus ; Journal of Comparative Neurology ; Journal of Mental and Nervous Diseases ; Journal of Psychology ; Medicine ; Medico-Legal Journal ; Medical Standard ; Monthly Journal of Medicine and Surgery ; Montreal Medical Journal ; Psychological Review ; Quarterly Journal of Inebriety ; Reports of the Smithsonian Institute ; States Hospitals Bulletin, N.Y. ; Universal Medical Journal.

**French.**

Annales Médico Psychologiques ; Annales des Sciences Psychiques ; Archives Clinicales de Bordeaux ; Archives de Neurologie ; Bulletin de Société Psychologie Physiologique ; Gazette des Hôpitaux ; Journal de Medicine de Bordeaux ; Nouvelle Iconographie de la Salpêtrière ; Polybiblion ; Progress Médicale ; Revue de Hypnotisme ; Revue Neurologique ; Revue Philosophique ; Revue Scientifique ; Revue des Sciences Médicales ; Revue Thérapeutique ; L'Année Psychologique.

**Belgian.**

Bulletin de Société de Médecine Mentale de Belgique.

**German.**

Allgemeine Zeitschrift für Psychiatrie ; Archiv für Psychiatrie und Nervenkrankheiten ; Centralblatt für Anthropologie ; Centralblatt für Nervenheilkunde und Psychiatrie ; Der Irrenfreund ; Jahrbücher für Psychologie ; Neurologisches Centralblatt ; Zeitschrift für Psychologie.

**Dutch.**

Nederlandische Tijdschrift.

**Italian.**

Annali di Freniatrie ; Annali di Neuropatologia e di Psichiatria ; Malattie Nervose e per le Alienazioni ; Annali di Psichiatria e di Pathologia Mentale e Nervose.

**Russian.**

Archiv Psychiatrii, Nevrologuji, i Somnolentie ; Centralblatt für Psychiatrie, Nevrologuji, i Experimentelle Psychiatrie, Nevrologuji, i Experimentelle Psychiatrie ; Nervno-psychitscheckoi Medizini ;

## Books and Pamphlets Received.

Les Caractères et l'Education morale, *Queyrat*; Du Fondement et de l'induction suivi de Psychologie et Metaphysique, *Lachelier*; Hypnotism, Mesmerism, and the new Witchcraft, *Hart*; Éléments de Psychologie Humaine, *Biervleet*; Ethnology, *Keane*; Uranisme et Unisexualité, *Raffalovich*; Der Krankheiten des Gehirns, *Dreyfus*; Wirklichkeits standpunkt, *Weinman*; Genio e Pazzia in T. Tasso, *Roncorini*; Prolegomena to a Philosophy of Medicine, *Goldsborough*; La psychologie du Raisonnement, *Binet*; Degenèrescence et criminalité, *Féré*; Jeanne d' Arc, *Zürcher*; Epileptische Geistesstörung Strafrechtspflege, *Wildermuth*; Le guarigione tardiva della pazzia, *Ventra*; Diseases of the Spinal Cord, *Williamson*; Nervous Diseases of Children, *Sach*; Physiological Factors of the Diseases of Childhood, *Rachford*; Youthful Eccentricity as a Precursor of Crime, *Winslow*; Intemperance, *Bedford Pierce*; Fear, *Mosso*; Epilepsie, Hysterie et Idiocy, *Bourneville*; Kantstudien, *Vaihinger*; Studien der medulla oblongata, *Bresler*; Deviation der Augen, *Bresler*.

The Editors also desire to acknowledge with thanks the receipt of the following Asylum Reports, but there are still many for last year which have not yet come to hand:—1895-6—Berks, Chester (Parkside), Cumberland, Monmouth, Northampton, East Sussex, Worcester; Bristol, Derby, London, Sunderland; Colchester; Barnwood, Lincoln (The Lawn), Northampton (St. Andrew's), Nottingham (The Coppice), Bethlem, St. Ann's Heath, York Retreat; Aberdeen, Argyle, Edinburgh, Fife, Dundee, Inverness, Glasgow (Royal, Barony, Govan); Baldovan; Belfast, Downpatrick, Ennis, Kilkenny, Limerick, Londonderry; Pennsylvania, New York, Iowa, Providence, East Virginia, Taunton, Ohio, Washington, Warren, Hudson River; Montreal.

Members are reminded that prompt and full information regarding matters of interest to the Association will be gladly received.

Original Papers, Correspondence, &c., to be sent direct to Dr. URQUHART, James Murray's Royal Asylum, Perth.

English books for review, pamphlets, exchange journals, &c., to be sent by book-post to the care of the publishers of the Journal, Messrs. J. and A. Churchill, 7, Great Marlborough Street, London, W.

Authors of Original Papers receive 25 reprints of their articles. Should they require additional Reprints they can have them on payment of the cost of the Journal, South Counties Press and Publishing Co. Ltd., charge.

Reprints of *Journal of Mental Science* are regularly sent by post to the Honorary and Honorary Members of the Association. Application for the Association to be made to the Hon. SECRETARY, 11, Chandos Street, W.

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## PART I.—ORIGINAL ARTICLES.

*Torquato Tasso and his Biographers.\** By W. W. IRELAND, M.D.

When one compares the few details left us about the life of Shakspere with the wealth of materials for writing the biography of Tasso we might suppose that there would be little doubt about the main facts in the life of the great Italian poet. Nevertheless some of the most important passages in his life have been the subject of controversy for the last 300 years. These questions especially regarded the treatment Tasso met with from the ducal family of Este, and unless we understand these relations correctly, we may totally misconceive the character of the poet and all the later events of his life. It seems strange that such questions have remained so long undecided; but biographers and critics are often much better acquainted with books and texts and languages than with human nature. A fine illustration of this is furnished by the *Life of Tasso* † by the Rev. Mr. Milman. Here we may refer the reader to a paper in this Journal of January, 1877. The author, whose initials are A. C. M., though his study of the life of Tasso had apparently gone no further than a perusal of Milman's book, was able to show many of the errors into

\* Angelo Solerti, "Vita di Torquato Tasso." Turin and Rome, 1895 (3 volumes octavo). "Luigi, Lucrezia e Leonora D'Este, Studi di Giuseppe Campi e Angelo Solerti." Turin, 1888. Angelo Solerti, "Ferrara e la Corte Estense nella seconda metà del Secolo Decimosesto. I Discorsi di Annibale Romeo Gentiluomo Ferrarese." Città di Castello, 1891. "Opere Minore in Versi Torquato Tasso," Edizione Critica a cura di Angelo Solerti. Bologna, (2 volumes). Pier de Nolhac e Angelo Solerti, "Il Viaggio in Italia di III. re di Francia e le Feste a Venezia, Ferrara, Mantova e Torino." Turin. "Genio e Pazzia in Torquato Tasso." Luigi Roncoroni. Turin, 1896.

† "The Life of Torquato Tasso," by the Rev. R. Milman. London, 1

which the biographer had fallen. In truth Mr. Milman, although he took up the traditional view that Tasso was the victim of vindictive persecution by the Machiavelian Duke of Ferrara, yet was too candid to repress a number of facts which, in the eyes of an able psychologist, showed that his whole treatment of the life of Tasso was founded upon a complete misconception or ignorance of the ordinary symptoms of mental derangement.

A previous biographer, by a careful study of the published materials of the poet's life, had come to a correct view of his mental condition. Dr. Black's *Life of Tasso* \* is a much superior work to that of Mr. Milman, though it is somewhat too prolix for readers in the present day. Of late years some Italian scholars have made very laborious inquiries into this subject, and the light now thrown upon the events of the poet's life and the different personages with whom he came in contact is so complete and searching that it is impossible any longer to defend the old traditional errors about Tasso which are commemorated in the poem of Byron. Last year, on the three hundredth anniversary of the death of Tasso, Solerti gave to the world his long promised *Vita di Torquato Tasso*, the consummation of his persevering studies, some of the results of which had been given in previous publications. In the first volume of his work, which fills 883 pages, Solerti deals with the life of Tasso. In the second and third volumes, which together make 750 pages, are given Tasso's letters, some of them hitherto unpublished, with other documents about his life and writings, and copies from the portraits and medallions of the poet. There are also engravings of some places rendered memorable by events in his life. An enormous amount of learning and critical skill has been expended in making this work as complete as possible.

Torquato's family can be traced as far back as 1194. They took their name from a hill in the valley of the Brembo which was called Tasso or Taxis from the yew trees which grew abundantly around the tower where they lived for generations. Increasing in wealth and importance they came to a mansion house in the neighbouring town of Bergamo. Solerti gives a genealogical tree of the family, which includes nine generations, down to Bernardo Tasso, the father of Torquato. The Tassi had many members who earned

\* *The Life of Torquato Tasso, with an historical and critical account of his writings*, by John Black, in 2 volumes. Edinburgh and London, 1810.

renown as generals, diplomatists, and ecclesiastics. Omodeo Tasso had the merit of reviewing the institution of regular posts in the fourteenth century in Italy, France, Germany, Spain, and Flanders. His descendants gained wealth and distinction by becoming generals of the post in these countries. Several branches of the family received titles of nobility from different sovereigns in Europe ; and one founded the princely house of Thurn and Taxis. It appears that all the Italian branches of this once vigorous and prosperous family have now become extinct, at least in the male line.

Bernardo Tasso was born at Venice in 1493. He was left an orphan at the age of 18, with two sisters, and it was with difficulty that he could find means to continue his studies at Padua. During the course of an eventful life, changing like a bird from bough to bough, he became secretary to Renée, the daughter of King Louis XII. of France, who was married to the Duke Hercules of Ferrara. This princess favoured the Reformed Religion and corresponded with John Calvin, who spent some months at Ferrara under a feigned name. She afterwards openly avowed her Protestant views, which gave great annoyance to her husband, who held his principality of the Papal See. In the end she was separated from her children and kept for some time in confinement. Bernardo Tasso was employed in important missions as a secretary and diplomatist. As a poet he gained a good reputation in his own day. Becoming secretary to Ferrante Sanseverino, Prince of Salerno, he accompanied the expedition of the Emperor Charles to Tunis in 1535. After a life of toil, dependence, and anxiety, a vision of love and happiness shone on his autumnal days. In 1536 he contracted a marriage with Portia di Rossi, a lady of a noble Neapolitan family who was entitled to a large dowry. They settled at Sorrento on the Bay of Naples. With true Italian frankness Bernardo writes how happily his days went by with his lovely young wife and his little daughter Cornelia. He hoped for a son who would continue the name of Tasso, and he was working at an epic poem, *The Amadigi, or Amadis of Gaul*, which was to secure his memory from the assaults of death and time. A son was born who died in infancy ; not long after Bernardo was called away to follow San Severino to the war with the Turks. It was during this war that Torquato was born on the 21st of March, 1544. Bernardo was now about fifty years of age.

A month after the birth of this child the French defeated the Imperialists at the battle of Cerisoles. San Severino greatly distinguished himself in conducting the retreat of the Spanish infantry and checking the advance of the French. After this Bernardo visited France and Flanders and did not return to his home till January, 1545, when he first saw his infant son. On his return Bernardo spent two happy years with his wife and children at Salerno. In 1547, Don Pedro de Toledo, the Spanish Viceroy of Naples, attempted to introduce the inquisition into the Italian kingdom, which met with violent opposition. San Severino undertook to lay the case of the recusants before the Emperor Charles, who was then at Nuremberg. In this mission he was seconded by Bernardo. Their representations were not without success; but the Prince found on his return that he had so mortally offended the Viceroy that he could no longer live safely at Naples. Leaving his wife in Naples (1551), Bernardo followed his patron, who went to France, and arranged to support Henry II. in an invasion of Naples. San Severino even went to Constantinople to obtain the help of the Turks, who sent a fleet which ravaged the coast of Calabria and anchored in the Bay of Naples. Bernardo, who took an active part in these negotiations, was declared a rebel, his house was seized, and his property confiscated. He had now to live on what the exiled Prince of Salerno could afford. Apparently the Rossi family had not been on cordial terms with him, and they now took advantage of his discredit with the Neapolitan Government to withhold the payment of their sister's dowry, so that Portia was left in poverty with her two children.

After two years' attendance on the French Court, Bernardo had to abandon the hope of his patron San Severino returning to Naples as the Viceroy under Henry II. He now came back to Italy, in 1554, to resume his wandering and unsettled life. Amongst these cares and afflictions Torquato Tasso attained the age of ten years. He received his first education at a college of the Jesuits, who took care to deepen the religious instruction begun by his pious mother. He says in a letter that "the Jesuit Fathers under whose discipline I was educated, made me communicate when I was but nine years of age, though I was so well grown and showed such signs of maturity that I might have passed for a youth of twelve." In the year 1554 Portia was driven by the persecutions of her relations to seek

refuge with her daughter Cornelia in a nunnery at Naples, and Torquato was sent to meet his father at Rome. In after years he recalled in some pathetic verses how cruel fortune had torn him away from the arms of his tender mother, and the kisses bathed with tears which she gave him at parting. Bernardo was lying ill when his son arrived at Rome. He had the charge of Christopher Tasso, the son of a relative, and the education of the two boys became the object of his anxious care. Befriended by the new Pope, Paul IV., his prospects seemed to improve, and he was providing a home for his wife and daughter when he received news of the death of his wife after a sudden illness of only twenty-four hours' duration. In a letter to a friend Bernardo bewails her death, and accuses himself, through vain ambition and affection to his prince, of leaving her in the power, not of brothers but of enemies, not enemies but pitiless wild beasts, and of a mother not a mother, but to her children a bitter enemy, not a woman, but in sooth an infernal fury. He states his suspicions that Portia was poisoned, and laments the condition of his daughter left in the hands of enemies without a friend save a wretched father, poor, old, distant, and in disgrace with fortune.

In order to keep hold of Portia's dowry her brothers got Torquato declared a rebel, because he had gone at the age of ten to meet his father at Rome. Soon after war broke out between the Pope Paul IV. and Philip II., and the Duke of Alva's advance upon Rome scared away Bernardo, who found refuge with the Duke of Urbino.

The later years of Bernardo's life were passed in Northern Italy, where he was befriended, not only by the Duke of Urbino, but by the Dukes of Mantua and of Ferrara, acting as secretary, diplomatist, or courier, a changeful, toilsome, and difficult life. Dr. Black has suggested that the miseries of need in sight of wealth and splendour, and dependence in sight of power, which the younger Tasso shared with his father, may have laid the foundation of the deep melancholy of his later years. He recalls the observation of Burns about his own frequent depression of spirits. "Extreme sensibility," says the Scottish poet, "irritated and prejudiced on the gloomy side, by a series of misfortunes and disappointments, at that period of my existence when the soul is laying in her cargo of ideas for the voyage of life, is, I believe, the principal cause of this unhappy frame of mind." Nevertheless, although we know

that the younger Tasso sympathised with the fortunes of his father, and there is extant a pathetic letter in which he begs for pecuniary assistance for him, there is a want of proof that those miseries made any abiding impression on his mind. The happiness of young people is not so dependent upon circumstances. The hardships endured by Burns were of a much rougher sort. The bright, handsome, wonderfully precocious boy received much kindness from his father's friends, and shared in many of the luxuries of his father's patrons. If genius increases men's sensibility to pain and disappointment, it also increases the zest of their hopes and enjoyments.

During all his straits and anxieties Bernardo never neglected the education of his son, who was trained by the best instructors in all the learning of the Renaissance. At the age of sixteen he was sent to the University of Padua to study law like Petrarch and Ariosto, and like these poets he neglected that dry study for literature. Going to spend his first vacation with his father at Venice, Torquato gained his consent to return to Padua as a student of philosophy and rhetoric. Bernardo had got his *Amadigi* published in 1560. He had altered many passages in his poem in the hopes of gaining the indulgence of Philip II. of Spain, to whom it was dedicated. This made no impression on that inflexible monarch, nor did the poem meet with the reception which the author hoped for from the Italian patrons of literary merit. Bernardo could not fail to be pleased with his son's verses, though it was said that he never could think them better than his own.

The events of Torquato's life were well adapted to bring his poetical genius to an early bloom. In the short time of ten months he wrote a poem celebrating the exploits of the Paladin Rinaldo. It was published at Venice in 1562, dedicated to the Cardinal Luigi of Ferrara. Torquato, though now only eighteen, was at once recognised as a poet of the first rank. From Padua he was attracted to the ancient University of Bologna, living on a subsidy granted by the Duke of Urbino.

Torquato afterwards wrote that his youth was subjected to the sway of love, and Solerti takes much pains to find out the names of the golden-haired beauties of Lombardy who inspired the sonnets of three hundred years ago.

Tassino, as he was called, was denounced as the author of a pasquinade turning some scholars and professors of the

University into ridicule. Although he denied the authorship, it was thought that, as he could repeat forty or fifty verses of it off by heart, he must have had something to do with the composition of the satire. One witness said that Tassino had not enough of talent to write it. Menaced with arrest he fled from Bologna. In a tirade written against him Tassino was abused as *omni genere vitiorum infamis*, and the less suspicious testimony of two of his cousins leads us to believe that Torquato had taken part in the frolics and dissipation of the wilder students of Bologna.

In 1564 he returned to Padua to continue his studies, and in the following year he entered into the service of the Cardinal Luigi of Este. Torquato, introduced by his father to this illustrious family, had already made a visit to Ferrara, where he had gained friends and fallen in love with one of the ladies of the Court, the beautiful Lucretia di Bendidio. He arrived on the last day of October of 1565, in the midst of the preparations which were being made to give a splendid reception to the Princess Barbara of Austria, who was to become the second wife of the Duke Alfonso II. Tasso was presented by the Cardinal Luigi to his sister the Princess Lucretia. The Princess Leonora was at that time suffering from illness, and he did not see her till later. Their brother, the reigning Duke Alfonso II., now a man of thirty-two years, was endowed with great vigour both of mind and body, reputed a master in war affairs, fond of the society of learned men, a great patron of literature and music. He was of a restless temperament, and in an uneasy position, emulous of rank, jealous and punctilious, and when offended, an implacable enemy. His relations with the literary men whom he attracted to Ferrara were particularly unfortunate. This has injured his reputation with posterity; but every new research seems to remove imputations against his character, which on the whole stands out favourably when compared with other princes of his time. His generosity was kept up at the expense of his subjects, who were heavily taxed while the dykes against the Po were ill kept up; but their complaints were at the time little regarded amidst the brilliant pageantry of the Court.

The poet Guarini had warned Tasso of the corruption of Ferrara, and the insecure life of a courtier; but in those days the favour and patronage of the great were almost the only support by which a man could live if he devoted himself to literature. The Cardinal Luigi appears in Solerti's pages

as pushed when a young man into the Church to hold rich benefices in Italy and France. He was in no way religious, fond of pleasures, given to women, suffering much from gout, often quarrelling with his elder brother, hating trouble and business, a spendthrift, greedy of money, and always in debt. Tasso's duties at Court seem to have been mainly ornamental, writing sonnets and attending the Duke on State occasions. The Cardinal left him ample leisure for writing his poems, in the composition of which he took a lively interest. Lucretia was a woman of vigorous health, fond of pleasures and amusements, ambitious, intriguing and vindictive, the heroine of a drama of adulterous love. The Princess Leonora was always in weak health, never well for three months at a time, suffering apparently from heart disease. She was a woman of spirit, and during the absence of the Duke governed the principality so as to gain the love of the people. From her letters it appears that she was much occupied with the lawsuits of her brother Luigi, whose part she took against Alfonso. Though friendly to Tasso, there is no evidence that Leonora ever regarded the poet with especial favour, and in the end she proved a lukewarm protectress.

Lucretia on the other hand was a true patroness of the arts and poetry, showed a warm admiration for the poet, and evidently came into much closer relations with him. Lucretia was now about thirty years of age, Leonora twenty-eight, and Torquato Tasso was twenty-one. In person his lofty stature distinguished him even amongst tall men ;\* he was thin but well-proportioned. He had a fair complexion, a high square forehead, brown hair, the beard somewhat lighter, eyebrows finely pencilled, large blue quick eyes, the nose somewhat aquiline, the lips pale and thin, and the teeth white. What strikes us in his portraits is the large portion of the head in front of the ear. The expression was

\* The person and appearance of Tasso are described in great detail by his friend Manso; see "Vita di Torquato Tasso scritta da Gio Battista Manso, Napoletano," Venice, 1621, p. 236. Solerti reproduces many of his portraits. Some of them, especially those from Bergamo, have little resemblance to the others. It is difficult to get Manso's description to agree with some traits in the portraits. Here are some particulars which are not included in the description above. The head was large and prominent at the base and at the occiput, but in the middle rather depressed at the temples than round. The forehead was large and square. As Tasso got older he lost much of his hair, becoming almost bald. The mouth was rather large, the teeth white, large and thick, and the chin square. There was a looseness in his motions and carriage which disappointed expectation, but his countenance and expression had an air of majesty.

generally grave, he was little inclined to mirth. He was short-sighted, had a slight stammer, and was apt to repeat the last word. Not only was he versed in all the learning of the Universities of his time, and the accomplishments and graces of Courts, but he was skilful in fencing and tilting. Under such distinguished patronage Torquato Tasso entered into this gay and polished Court, in the bloom of youth, yet already a famous poet, seeking honour above all things, fond of distinction, unguarded in his speech, generally temperate in his habits, but a lover of fine wines, seeking the smiles of the ladies of the Court and not in vain.

From Ferrara Torquato was suddenly called to the aid of his father. Worn out with toil and age, Bernardo had left the office of Secretary in Criminal Procedures to the Duke of Mantua for the easier situation of Chief Magistrate of Ostia, a little town on the Po, where he died on the 5th September, 1569, at the age of seventy-six. Bernardo was a strikingly handsome man of a powerful constitution. In his mental activity and his fondness for poetry, as well as his restless disposition, Torquato was the true heir of his father. As Bernardo observed that his son had inherited the talents of his mother, we may conclude that Portia was a woman of superior mental ability as well as of moral worth.

In the autumn of 1570 Tasso went with the retinue of the Cardinal to France, where he spent five months. Anne of Este, Luigi's eldest sister, was the wife of the Duke of Guise. At this time the Protestants were being flattered in preparation for the massacre of St. Bartholomew.

On his return to Italy in the spring of 1571 he quitted the service of the Cardinal. The cause of this change is not certainly known, but at any rate Tasso appeared a gainer, for he now entered the immediate service of the Duke of Ferrara, receiving a much more liberal allowance. Solerti tells us his salary amounted to 15 golden scudi, equal to about 110 lire a month. It appears that this was about the highest pay in the Duke's Court. Guarini, the celebrated poet, did not get half so much. In 1573 he had completed the *Aminta*, a pastoral drama. It was performed at Ferrara, and met with much favour throughout Italy. It shares with *Il Pastor Fido* of Guarini, published twelve years later, the reputation of being the most beautiful composition of the kind in the Italian tongue. Soon after this the Duke gave Tasso the office of Professor of Geometry. The duties were light, for

he had only to lecture on holidays, and the salary, though small, was no doubt a pleasant addition to his income, for the poet, who took little care of money, was generally in debt. He now turned his full attention to the composition of the great epic poem which was to place him by the side of Virgil. Tasso had learned much of the picturesque aspect of things ; he had wandered through Italy and France and knew their fairest cities ; had conversed with famous warriors and statesmen, and received the changing lessons of adversity and prosperity. Above all, he had the genius to drink inspiration from all sources ; what his father had vainly struggled for his more gifted son could easily attain. Caressed by noble ladies, the favourite of a prince, admired as a great poet, holding in his hand the cup of immortality, he seemed to have attained the summit of earthly felicity only to give a pathetic illustration of the vanity of human hopes.

In the August of 1574 Tasso had scarcely finished the last canto of *Jerusalem Delivered* when he was seized with a quartain ague, which lasted for many weeks. In the middle of November he records that he was unable to write a letter with his own hand from languor and weakness. Seven years before he had been ill for a month at Mantua nigh to death, suffering from a fever of some kind which, he noted, weakened his memory for a time. The principality of Ferrara was exposed to the malaria from the overflow of the Po. Intermittent fever sometimes affects the brain, but it can scarcely be a cause of mental derangement save to those predisposed. In Torquato's case there is no record of any hereditary neurosis, but from this illness we may trace a train of symptoms which gradually swelled into significance. In the spring of 1575 he was in better health, and commenced to make journeys to Padua and the neighbouring cities to obtain the opinions of learned men about passages in the *Jerusalem Delivered*. Cantos of the poems were sent here and there to professors of rhetoric, and to divers learned men at Rome, Florence, Venice, and elsewhere. These pundits were much flattered at being consulted by so famous a poet, and returned showers of criticisms, objections, and suggestions. The metaphysicians pointed out how the epic transgressed the rules of Aristotle ; the ecclesiastics wished that the love passages should be struck out or frozen down, and scented heresy in the bits about magic and enchanters. Some of them hinted that the Pope would

refuse his license to the poem being printed. Tasso replied to his critics in long letters. Nevertheless he had serious misgivings about the whole plan, doubts about particular passages, and fears about the success of his great poem. The commotion of his mind was increased by anxieties that his manuscripts were lost, and fears that copies were being taken, and that a pirated edition would be printed somewhere. He writes that he was so impatient to see the poem printed that every month's delay seemed a thousand years. "What a wretch I am," he exclaimed; "every one wishes to be my tyrant. I do not refuse advisers if they will content themselves with being merely such." Yet after the first revision, which occupied eight months, the over-fastidious poet set agoing a new one, which lasted ten months, to his own farther vexation.

Tasso had now got tired of Ferrara, and made some overtures, through his friend Scipio Gonzaga, to the Grand Duke of Tuscany. This was calculated to give dire offence to Alfonso, who used to exact a promise from his officials that they would not seek service with another prince without his permission; besides, he especially hated the Medici, with whom he had a long dispute about precedence.

During the summer of 1575 Tasso was again ill, suffering from fever, exhaustion, and confusion in the head. He was distracted by doubts about the existence of God, the creation of the world, the sacraments of the Church, and the authority of the Pope. Though taking some part in the dissipation of a luxurious Court Tasso's mind was deeply religious, not of the kind to keep easily fluttering in scepticism. Distracted with fears of damnation he went to the inquisitor at Bologna and confessed his doubts. Whether such an unusual procedure startled that functionary, or whether Tasso gave other signs of mental aberration, is not known, but the astute priest evidently laid little stress upon the poet's revelations, and Tasso himself thought he did not treat them seriously enough, and was not contented with the absolution granted.

It does not appear that the Duke abated in his kindness to the poet, and Lucretia, now become Duchess of Urbino, had him much in her company. They were both fearful that Tasso would spoil the poem by his changes and corrections, and were desirous that he should publish it at once. The *Jerusalem Delivered* has many passages complimentary to the family of Este and to Alfonso, who wished

his name to be associated with an immortal work. He received offers from the Cardinal de Medici which he would neither accept nor dismiss. He applied to be made historiographer to the family of Este and then regretted when his request was granted. He feared that he could not write a true history without offending some of his patrons. He was in continual dread that his letters were opened and his poems copied, yet he would not desist sending them about all over Italy. In his letters to Gonzaga he bewails his want of resolution, which he fears will prove his ruin. He beseeches his friend to show none of his letters either to a stranger or to any of his family. "Something, I know not what, is whirling through my mind."

The old story that traces all Tasso's misfortunes to his having fallen hopelessly in love with the Princess Leonora, and the deep offence which this gave to her brother, has gained world-wide currency. It forms the theme of Goethe's beautiful drama of *Torquato Tasso*. Some of the verses expressing his first emotions on being presented to the princess are often quoted as showing his unhappy love. They scarcely prove more than the deep admiration which the Court poets of that age were allowed to express in verse for the great ladies whose rank raised them above every other feeling but adoration. As is laid down by Romei, a contemporary writer, "for love to resolve itself into desire it is necessary that the reason should consent to it, but if the beauty resides in too lofty a subject, as in a princess, the hope of union and mutual love being forbidden by the light of reason, the affection dissolves not into amorous desire, but into deep reverence." However, the view that Tasso was really in love with Leonora derives support from the testimony of Manso, his friend and biographer; but if such a feeling existed, it could hardly have been of an engrossing character. So far from there being any proof that Tasso ever nourished a deep and pervading passion, such as Petrarch bore to Laura de Sade, there are many proofs of the fleeting character of his amours. Indeed, he openly proclaims his inconstancies in his verses. "I tried many ladies and found the hearts of many soft to me, but I was hard. I never had a lasting care for a fixed object, and my loves were always inconstant and never burning." According to Serassi,\* the author of the first

\* "La Vita di Torquato Tasso," scritta dall'Abate Pierantonio Serassi, Roma, 1785.

critical biography of Tasso, who appears as a defender of the house of Este, Leonora was a princess of saintly virtues who kept apart from the vanities of the world, and if there were ever any tender relations between the poet and his patronesses it is much more likely that they were with Lucretia. Serassi tells us that at this time Tasso was only kept from quitting Ferrara by his passion for Eleanora, the young Countess of Scandiano. He celebrates in verse her beautiful lips, which he touched for a moment to find, like Tantalus, deceived—

That nought remains behind the empty kiss  
But love's fell poison rankling at the heart.

In another canzone he intimates that if he cannot raise his hopes to gain the love of the Countess, he will not disdain the empire of her waiting maid. We read too of other Leonoras and Lauras. Solerti,\* who is exempt from the ordinary weakness of biographers to stand as the indiscriminate advocate of their heroes, mentions some confessions which are not creditable to Tasso as probably owing to incipient insanity. His anxieties were varied by intervals of calm or fits of epicurean gaiety. It seems natural to suppose that a man in Tasso's position should be the object of envy and hatred, and that some of the intrigues and plots which he discovered were so far real as to confirm him in his suspicions. He writes to Gonzaga about a treacherous friend whom he calls Brunello. He had lent this person the key of his chamber when on a visit to Modena, and a report came to his ears that Brunello was seen to enter his quarters during the night accompanied by a locksmith. Tasso succeeded in finding the locksmith, who confessed that he had been to the court to open a door of which the key had been lost. Tasso believed this was to obtain access to a closet in which his secret papers were kept, and guessed that Brunello's design was to make himself acquainted with the strictures on the *Jerusalem Delivered* which had been sent by the various critics with whom he had been corresponding so long.

There are several discordant versions about a quarrel which Tasso got into about this time. The poet had an altercation with a courtier, and this person answering defiantly, Tasso gave him a blow in the face, in the hall of the palace. Soon after the man, with his three

\* Vol. i., pp. 247-9.

brothers, set upon Tasso, who defended himself with great prowess till his adversaries fled. Manso, who writes that the encounter took place beyond the city gate of Ferrara, tells us that the whole four set upon Tasso with drawn swords, and that the poet gained such renown from his brave defence that it passed into a proverb at Ferrara that no one equalled Torquato either with the pen or the sword.\* His unworthy adversaries fled to Florence till the affair blew over. Tasso accuses this courtier of opening a chest containing his secret papers, about which he believed every one was interested. He wrote to the Marquis of Monte complaining that during the last eight months he had suffered much, especially from servants, who had stolen many of his precious papers, and though their wickedness was well known to himself and many, it was rather cloaked than punished by the judges. He entreats the Marquis to send him a servant and to threaten and get the Duke of Urbino to threaten him with the severest punishment if he behaved ill. "Tell him," Tasso adds, "that my word will be taken with regard to the propriety or impropriety of his conduct, for judicial proof cannot at this place and in such a case be expected." Eight days after, receiving no reply, he writes another letter repeating this request. By this time the poet had quarrelled with a good many of his critics and literary friends, with Guarini amongst others.

The singularity of the poet's behaviour seems only to have increased the kindness and solicitude of the Duke and his sisters. Lucretia especially did her utmost to calm and divert his anxieties and dissuade him from imprudent steps; but one evening, irritated by the presence of a servant, who was perhaps instructed to watch him, Tasso ran at the man with a knife. This happened on the evening of the 17th June, 1577, as we learn from a letter of Maffeo Veniero, a patrician of Venice and a well-known poet, at that time residing in Ferrara, in which he says: "Tasso was yesterday incarcerated for having in a chamber of the Duchess of Urbino drawn a knife upon a servant; but he has been arrested rather on account of his disorder and in order to have an opportunity to cure him than to get him punished.

\* Manso's account ("Vita," p. 73), which seems to me a probable one, is contradicted by Serassi ("Vita del Tasso," Lib. ii., p. 235), who publishes the fragment of a letter from Tasso about the affray. Solerti ("Vita," Vol. i., p. 239) reduces it to an attempt on the brothers to cudgel Tasso. It is, however, clear from the action of the Duke and the flight of the brothers that the affair was of some importance.

He has some strange humours of being guilty of the sin of heresy and of the fear of being poisoned, which I believe arises from melancholic blood confined at the heart and fuming to the brain. A miserable case for one of his worth and goodness."\* The Duke was at his country seat of Belriguardo. On learning what had happened he instructed the steward of the palace to tell Tasso plainly that his mind was deranged and that he must submit to medical treatment. He listened to this message with astonishment; but thanked the Duke and promised to obey. Through the friendly hands of the steward Tasso sent a pathetic letter to the Duke asking to be allowed to return to his quarters. Alfonso sent his own physician to attend him. It was thought not safe to let him back to his rooms till bars had been put on the windows, and two men were appointed to watch him. He was allowed to return by the end of the month. He begged that the keepers should withdraw from his room as he could not close an eye while they were there, and this was granted. On the 2nd of July the Princess Leonora came with the doctor to see him, and on the 6th he was sent to Belriguardo.

(To be concluded.)

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*Statistics dealing with Hereditary Insanity, based on upwards of a Thousand Cases occurring in the Essex County Asylum.* By JOHN TURNER, M.B., Senior Assistant Medical Officer.

Fifty years ago Baillarger† showed from a study of 453 cases that insanity is one third more frequently transmitted from the mothers to the children than from the fathers, and that in the case of sons the transmission is as frequently from one parent as from the other, and in the case of daughters the disposition to insanity is inherited twice as frequently from the mother as from the father. Leubuscher‡ apparently referring to some later statistics of Baillarger's dealing with 600 cases, found that:—

1. Insanity on the side of the mother is of more importance from an hereditary point of view than on that of the father, owing to its being more frequently transmitted

\* Serassi, "Vita," p. 247.

† "Recherche Stat. sur l'Hérité de la Folie," *Ann. Med. Psych.*, 1844. Quoted by Greisinger (*N. Syd. Soc. Transl.*, p. 154).

‡ *Journ. Psych. Med.*, Vol. i, p. 264.

to the offspring generally and often likewise to several children of the same parent.

2. Insanity on the side of the mother is more frequently inherited by daughters, and on the side of the father by sons.

It will be noted that this latter statement does not accord with the second statement of Baillarger's quoted above, but that it is in harmony with Darwin's Law of Heredity.

Dr. Brigham,\* of New York, held similar views to Leubuscher as regards the transmission of hereditary insanity in the New World; he found that the mother was a little more liable to transmit insanity to the offspring than the father, and considerably more likely to transmit it to daughters than to sons, while the father more frequently transmitted it to the sons. Thus of 79 men, 42 had insane fathers, 35 insane mothers, and 2 had both parents insane; and of 96 women, 37 had insane fathers, 56 insane mothers, and 3 had both parents insane.

Recent observers on the whole seem to be in accord with these older writers especially regarding the greater liability of the mother to predispose the offspring to insanity, but I have not been able to find any account of later statistics on the subject, apart from a few tables in the annual reports of one or two English and Scottish Asylums showing the degree of relationship of the insane relatives in those admitted with a family history of insanity, and of certain American Asylums which also give tables; but with the exceptions of the reports of the Kankakee and Pennsylvania Asylums, the information given by these American statistics is vague, the degree of relationship not being stated, and only in some cases is it stated whether the predisposition to insanity is on the paternal or maternal side. There are, I think, very strong objections to the publishing of annual tables in asylum reports concerning hereditary predisposition to insanity in the cases admitted during the year, as, unless elaborate precautions are taken, relapsed cases in which where there is an insane heritage it is very usual for temporary improvement to occur, are liable to be included more than once in successive tables. And further I have found here not at all unfrequently that, although on admission no family history of insanity could be elicited, that subsequently, perhaps many months after, such information was obtained from visitors or friends, and many of such

\* *Journ. Psych. Med.*, Vol. i., p. 91.

cases would fail to be included in any yearly table dealing with admissions only. For these and other reasons it is much better to publish the results obtained from a large number of cases extending over many years, as in this way with a little care it is easy to prevent including the same individual more than once, and one is more likely to obtain all the information possible concerning each case.

Dr. Clouston's\* impression is that states of depression of mind are hereditary more than most morbid mental symptoms. An hereditary predisposition to insanity was admitted in about 30 per cent. of the cases of melancholia sent to Morningside, but he thinks this is very far from representing the entire truth. So far as my figures go they support this belief. During the last ten years the proportion of cases of all forms of mania admitted to all forms of melancholia has been amongst the males in the ratio of 3 to 1, and amongst the females 3·4 to 1. In those admitted during the same period with an hereditary predisposition to insanity the ratio of all cases of mania to melancholia was amongst the males 2 to 1, and amongst the females 1·7 to 1.

Dr. Campbell† believes that "hereditary predisposition from the maternal side is more baneful than from the paternal, that the predisposition derived from melancholia states with suicidal tendencies is a more transmissible insane element than the nerve flaws which result in cases of mere excitement, and that the unknown condition which produces epileptic insanity is of all others one of the most dangerous legacies."

The figures on which I shall base my conclusions consist of 1,039 individuals with hereditary predisposition to insanity, who have been admitted into this asylum during the last ten or eleven years; but in the first place I shall refer to the American tables which deal with very large numbers in order to discover how far they agree with the figures of this asylum.

It is only the Pennsylvania Asylums which give in their tables the number of fathers and mothers insane. In the last report to hand, September 1894, 129 male residents with hereditary predisposition had the father insane in 56 instances, the mother in 60, and both parents in 13. 149 females with hereditary predisposition had the father insane

\* *Lectures on Mental Diseases*, 3rd edition, p. 119.

† *Cumberland and Westmorland Asylum Report*, 1890.

in 69 instances, the mother in 77, and both parents in 3. The total number of insane mothers was 137, and fathers 125. In the tables for 1891 dealing with residents, and therefore including many of the above, the figures were as follows:—Of 121 males 35 had insane fathers and 69 insane mothers (the insane mothers practically twice as numerous as insane fathers). Of 158 females 53 had insane fathers, and 98 insane mothers. The total number of insane mothers was 191 and fathers 112. That is to say the mothers were more frequently the transmitters of insanity to the offspring in the ratio of 1.7 to 1.

Now with reference to relatives on the maternal or paternal side; the Pennsylvania, Willard State, and Kankakee (Eastern Hospital) Asylums all agree in having more inmates with maternal relatives insane both amongst the males and females. In the Buffalo Hospital and the New York State Hospitals the order is reversed.

When these figures\* are added together we find that 687 males had 311 paternal and 376 maternal relatives, and that 711 females had 316 paternal and 395 maternal relatives; and they bear out the statement that the mother is more liable to insanity than the father, and is more liable to transmit this predisposition to her female offspring and more remote descendants.

The Kankakee Hospital gives some figures relating to a family history of intemperance in alcohol in the insane, and, as might be expected, such a condition is met with much more frequently on the paternal side, rather more than ten times as often according to these figures, and the male relatives are affected rather more than twice as often as the females.

So far as I know, the only English Asylums which publish tables concerning hereditary predisposition to insanity are the Cumberland and Westmorland, the Derby Borough, and the City of London Asylum. The results from these asylums (for five years 1889 to 1893 Derby, 1888 to 1892 Cumberland and Westmorland, and for six years 1888 to 1893 City of London) represent 484 individuals with hereditary predisposition admitted during this series of years, but being yearly tables it is very probable that the same individual is included more than once in some cases.

\* Referring to Pennsylvania Asylums Report, 1894. Kankakee Eastern Hospital, 1892. Buffalo State Hospital, 1891. Willard State Hospital, 1892. New York State, 1894.

In the Derby Borough Asylum the males have rather more insane fathers than mothers, but the difference is too slight to be of much significance (11 to 10); the females rather more insane mothers (13 to 9). As regards paternal or maternal relatives, including parents, the males have 21 of the former to 17 of the latter; the females 19 paternal and 27 maternal relatives. In the Cumberland and Westmorland Asylum the figures are as follows:—The males, 24 fathers and 23 mothers; the females, 18 fathers and 21 mothers. The males have 42 paternal relatives and 31 maternal relatives insane. The females have 33 paternal relatives and 30 maternal. In the City of London Asylum the numbers of fathers and mothers insane, amongst the males, is equal, viz., 14. The females have five fathers insane and four mothers. The males have 22 paternal relatives insane and 20 maternal; the females 12 paternal and 11 maternal. The totals for these three asylums show that the mothers are slightly more numerous than the fathers (85 to 81); that the males have more (2) fathers insane than mothers, and the females more (6) mothers insane. The males have 85 paternal relatives and 68 maternal. The females have 64 paternal and 68 maternal.

These figures are in accord with Darwin's Law of Heredity that adult paternal characteristics are more liable to be transmitted to male offspring and adult maternal characteristics to female offspring, but the difference is too slight to have much significance, more especially, as we have already seen, they are contrary to the results obtained when dealing with large numbers in American Asylums. They are, it is true, in agreement as regards direct and reverisional transmission with my figures, but here again there is too slight a difference to attach much importance to the fact.

I will now proceed to examine my tables.

No. I. not only gives the degree of kinship, but the actual number of insane relatives of each degree of kinship so far as could be ascertained. In the last column the figures are reduced to percentages for the purpose of comparison between the males and females.

This table brings out in a very striking manner the greater influence the mother and the maternal relatives have in the transmission of insanity to the offspring and more remote descendants. It shows the preponderance of mothers to fathers (240 to 197), of maternal grandparents to paternal (55 to 37), of maternal uncles or aunts to paternal (151 to

110). The cousins form the only exception, there being rather more paternal cousins (cousins on the father's side) than maternal. The last column enables the males and females to be compared, and shows that there are rather more females with insane parents, drunken parents, insane grandparents, and uncles and aunts. Taking the reverisional and collateral relatives (excluding brothers and sisters) we find that 100 insane males have 58 insane relatives on the mother's side and only 42 on the father's, and a hundred insane females exactly the same, 58 of mothers' relatives to 42 of fathers.

I have mentioned above that in the case of the direct and reverisional relatives the males have a slight excess of paternal relatives over maternal, *e.g.*, 91 fathers to 85 mothers, and 18 paternal grandparents to 15 maternal; but it is impossible, in dealing with so large a number, to attach much importance to so slight a difference.

I have also collected 123 instances in which one or both parents of insane children were drunkards. As would be expected the fathers predominate, but not to such a marked extent as in the American tables, where they are as ten to one, while in my cases they are only as four to one. My figures, however, show a rather greater number of insane females with drunken parents than males, but the American tables show rather more than twice as many males as females.

Table No. II. refers to the offspring of the fathers and mothers in Table No. I. It shows how many (as far as could be ascertained) insane children each father and mother had. This is information which can generally be obtained with a fair amount of accuracy from the friends or relatives in cases where a predisposition to insanity in the family is admitted. 186 fathers are tabulated, their insane offspring numbered 255. Nearly 71 per cent. had only one child insane, 29 per cent. had more than one. Reduced to percentages for purposes of comparison it will be seen that 100 insane fathers had 137 insane children, of whom the females were slightly in the majority.

236 mothers had 303 insane offspring. There is a much greater preponderance of females in this class (1.6 to 1). 80 per cent. of the mothers had only one child insane, the other 20 per cent. had more than one. The number of insane offspring is rather lower in the case of the mother being insane than the father. Thus 100 insane mothers had 128 insane offspring.

When both parents are insane their insane offspring are relatively much more numerous, being in the proportion of 178 to every 100 insane couple. In this class no less than 43 per cent. had more than one child insane, but the two sexes are fairly equally affected, there being of the 50 children 21 sons and 29 daughters.

This table shows in a very decided manner that whichever parent is affected, or if both parents are, that in all cases the evil influence is more marked in the female offspring than in the male. These results do not refer entirely to certifiable insanity, but include also cases of mental feebleness which have not required asylum treatment.

The facts brought out by these tables are, with the trivial exceptions above noted, not in accord with the Darwinian Law of Heredity. They do not show that paternal adult characteristics are transmitted to their male offspring rather than to their female offspring. Nor do they support the view held by some that the law of mental heredity crosses the sexes, the mother transmitting her characteristics to the sons and the father to the daughters. I see no adequate reason why there should be an agreement in the case of certifiable insanity with either of these laws, if we only bear in mind that it is not insanity itself which is transmitted from the parent to the child, but merely a more or less unstable condition of the nervous system, which either gives out on the first shock of birth or later on. These latter, who acquire insanity later on in the course of their life, have, so to speak, a jerry-built brain, perhaps capable of steering its possessor safely along the paths of life, while they are easy and smooth, and no undue obstructions or difficulties arise, but quite inadequate to withstand any severe stress or shock, such as it is probable those who actually fall victims to their hereditary weakness have encountered. Thus many male offspring of insane parents, although they have inherited an unstable nervous system, will, whilst their affairs go easily with them and they are not addicted to pernicious excesses of a sexual, alcoholic or other nature, be enabled to play their rôle in life creditably, or at any rate to steer clear of the lunatic asylum. The female offspring of insane parents are, however, exposed necessarily from their sexual peculiarities to greater stresses than their brothers. The periods of puberty, child-bearing, and the climacteric are associated in them with such grave disturbances of the system generally that they must possess an ordinarily healthy nervous system

to withstand the stress laid upon them at these times, and as every female has to pass through at least two, and many through all these crises, it is not surprising that with ill-developed, ill-nourished, and unstable nervous systems, few escape from breaking down at some period of their life.

Doubtless, if we could gauge degrees of stupidity with sufficient accuracy, and had the material tabulated, it would be found that silly fathers had more silly sons, and mothers daughters, or *vice versa*, in conformity with one of the laws mentioned above, but the exceedingly rough test of certifiable insanity does not permit of such delicate analysis. At best it gives us a rough guide to those individuals who have most largely inherited their parental or ancestral weakness: to those that is whose nervous system has broken down so far as to necessitate asylum residence for their care.

That this explanation accounts for the large number of females affected with hereditary insanity in proportion to males is rendered probable by the results obtained from some statistics dealing exclusively with congenital cases in whom one or other or both parents have manifested insanity, to which I shall now refer.

Table No. III. deals with congenital cases, and also cases of adolescent insanity, in which frequent relapses indicated highly unstable nervous systems or else in which some one or more physical stigma (such as narrow, badly-shaped palate) existed, indicated an ill-developed brain. The numbers of parents insane with imbecile offspring are 151 and the number of children 188. Sixty-five insane mothers had 76 imbecile children and fifty-four insane fathers had 72, and in 16 cases where both parents were insane there were 40 children imbecile.

Raised to 100 for purposes of comparison, it will be seen that—

100 mothers had 117 imbecile offspring.

100 fathers had 133 imbecile offspring.

100 both parents insane had 250 imbecile offspring.

The results obtained from this table are strictly in accordance with the Darwinian Law of Heredity. They show that the mother is more liable to transmit her unstable nervous system to her daughters and that the father is more likely to transmit it to his sons.

TABLE NO. I.

		Males.	Females.	Total.	Percentages.	
					Males.	Females.
<b>I. Direct —</b>						
Both parents insane...	...	11	21	32	2·6	3·3
Father	„	91	106	197	21·7	17·0
Mother	„	85	155	240	20·5	24·8
<b>II. Family History of Intemperance —</b>						
Both parents drunkards	...	3	9	12	0·7	1·4
Father drunkard	...	33	53	89	8·6	8·4
Mother	„	7	15	22	1·6	2·4
<b>III. Reversional —</b>						
Father's father	...	8	9	17	1·9	1·4
„ mother	...	9	11	20	2·1	1·7
„ grandfather	...	1	1	2	—	—
„ grandmother	...	—	—	—	—	—
Mother's father	...	7	17	24	1·6	2·7
„ mother	...	6	25	31	1·4	4·0
„ grandfather	...	1	1	2	—	—
„ grandmother	...	1	1	2	—	—
<b>IV. Collateral —</b>						
Brothers...	...	107	108	215	25·8	17·2
Sisters	...	79	80	259	19·0	28·8
Father's brother	...	24	33	57	5·7	5·2
„ sister...	...	14	39	53	3·3	6·2
„ uncle...	...	—	2	2	—	—
„ aunt ...	...	—	2	2	—	—
Mother's brother	...	31	38	69	7·4	6·0
„ sister	...	25	57	82	6·0	9·1
„ uncle	...	5	6	11	1·2	0·9
„ aunt ...	...	2	3	5	—	—
First cousin on father's side	...	11	26	37	2·6	4·1
„ „ „ mother's side	...	14	18	32	3·3	2·8
Sister's children	...	1	3	4	—	—
Brother's children	...	—	2	2	—	—
<b>V. H. P. not defined —</b>						
Father's side	...	2	2	4	—	—
Mother's side	...	2	6	8	—	—
<b>Number of Individuals</b>	...	414	625	1039	—	—

TABLE No. II.—Showing in the case of insane parents the number and sex of the insane offspring.

186 Fathers in- sane	1 child insane ...	132=70.9 %	sons ... ... 56 daughters ... 76 sons ... ... 42 daughters ... 40 sons ... ... 14 daughters ... 19 sons ... ... 5 daughters ... 3	sons ... ... 56	
	2 children insane	41=22.0		Daughters 138	Sons ... 117
	3 " "	11=6		Total ... 255	
	4 " "	2=1.07			
	1 child insane ...	188=80			
236 Mothers in- sane	2 children insane	37=15.6	sons ... ... 64 daughters ... 124 sons ... ... 31 daughters ... 43 sons ... ... 13 daughters ... 11 sons ... ... 3 daughters ... 1	sons ... ... 64	
	3 " "	8=3.3		Daughters 182	Sons ... 113
	4 " "	1		Sex not stated... 8	Total ... 303
	5 " "	1			
	8 " "	1			
28 Both parents insane	1 child insane ...	16=57 %	sons ... ... 7 daughters ... 9 sons ... ... 2 daughters ... 12 sons ... ... 5 daughters ... 1 sons ... ... 4 daughters ... 4	sons ... ... 7	
	2 children insane	7=25		Sons ... 21	
	3 " "	2=7.1		Daughters 29	
	4 " "	2=7.1		Total ... 50	
	6 " "	1			

TABLE No. III.—Showing in the case of insane and alcoholic parents the number and sex of the offspring who were either congenital imbeciles or the subjects of adolescent insanity with congenital defect.

	Mother.				Father.				Both Parents.			
	Insane.		Alcoholic.		Insane.		Alcoholic.		Insane.		Alcoholic.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1 Child ...	18	37	3	5	24	14	10	15	4	3	1	2
2 Children	9	9	—	—	18	10	1	1	—	4	—	—
3 „ „ ...	1	2	—	—	4	2	—	—	4	2	—	—
4 „ „ ...	—	—	—	—	—	—	—	—	4	8	—	—
5 „ „ ...	—	—	—	—	—	—	—	—	2	3	—	—
6 „ „ ...	—	—	—	—	—	—	—	—	3	3	—	—
Total ...	28	48	3	5	46	26	11	16	17	23	1	2
No. of parents }	65		8		54		26		16		3	

### Summary.

*Direct inheritance.*—(a) Taking all classes of insanity, acquired and congenital, we find that whilst the insane father transmits his mental instability to a greater number of offspring than the insane mother, it is on the daughters that it mostly falls, and where the mother is insane the influence is still more marked in the direction of the daughters; so that whichever parent is insane, more daughters ultimately become insane than sons.

(β) The number of insane mothers is very considerably greater than insane fathers.

*Reversional and collateral inheritance.*—(a) In both sexes the stronger hereditary influence comes through the maternal branch of the family.

(β) The males have the larger number of brothers insane, the females the larger number of sisters.

Bearing in mind the suggestions previously advanced as to the greater amount of stress that the female is physiologically exposed to, I am inclined to think that the results arrived at in Table III. give us a correct idea concerning the transmission of mental instability.

In this series extraneous circumstances have been excluded to a large extent, and the results are in harmony with Darwin's Law of Heredity. But larger numbers will have to be dealt with before any positive conclusion can be arrived at. Where we deal with all classes, as in Table I., these results are liable to be masked to a certain extent by other causes already mentioned. If such be the case the discrepancy between the two tables will serve to give us an idea of the marked influence that extraneous circumstances have in determining actual insanity in those predisposed to it.

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*Certain Conditions of the Circulatory System in the Insane.\**

By SAMUEL EDGERLEY, M.A., M.B., Assistant Medical Officer, Roxburgh District Asylum.

I propose to-day to discuss certain conditions of the circulatory system of the insane which are of interest clinically, and which have been illustrated by cases seen by me recently.

The connection between the mind and the circulatory system is an exceedingly close one. The effect of such mental emotions as fear and shame in producing pallor and blushing through the vaso-motor and vaso-dilator mechanism is a matter of common experience, while conversely all are acquainted with the pleasurable mental states produced by the increased flow of blood through the brain during normal physical exercise or under other stimulus, and with the contrary condition of the mind existing in the lethargy and languor caused by a sluggish circulation.

When we consider pathological states, we find the connection quite as marked, to take for example the fear of impending death, which is such a frequent and painful feature of the paroxysms of angina pectoris.

Mental disease brings out quite as fully the relation between the two. The signs of enfeebled circulation and its effects upon the other bodily organs are well shown in dementes, while amongst the most constant morbid appearances found in the brain post-mortem are the naked-eye and microscopic changes in and around the vessel walls, and the irregular hyperaemic and anaemic areas which give evidence of altered circulatory conditions during life.

\* Read at the Glasgow Meeting of the Medico-Psychological Association, 12th March, 1896.

We find that a large proportion of the patients on admission into asylums show signs of heart disease and circulatory abnormalities of all kinds. In the *Journal of Mental Science* recently, Dr. Beadles gave the percentage of patients with heart disease admitted into different asylums as varying from six to twelve. The percentage of those admitted into the Roxburgh District Asylum who present physical signs of heart disease is considerably higher, viz., nineteen. This includes not merely cases of valvular disease, but those in which there was good reason to diagnose degenerative lesions. This high figure may partly be due to the fact that we have not, as in larger city asylums, so many patients admitted suffering from the temporary effects of the distractions of a city life, in whom the mental conditions are apt to be more fleeting, and who are at an earlier period of life and less likely to suffer from cardiac disease. Comparison with post-mortem records, however, corroborates the figure mentioned, and Dr. Beadles states that on post-mortem examination no less than 91 per cent. showed structural disease of the valves or muscular substance of the heart.

The statistics already given refer to patients with organic disease, but an additional number of patients are found to present such modifications of the heart sounds as impurities, alterations in tone or pitch, accentuations, and reduplications, which may be referred to such dynamical causes as erratic or deficient cardiac innervation, want of muscular tone, and alterations in pressure in the vascular system. A very good instance of how such modifications may readily be produced, even in persons perfectly sound both mentally and physically, is afforded by the blowing murmur audible over the aortic arch in certain persons under the influence of vigorous bodily exercise or strong mental emotion, conditions which are present in a marked degree in those labouring under insane excitement. The percentage of admissions presenting these modifications of the heart sounds was seventeen. In none of these was there any reason to suspect organic disease of the heart, but in some the murmurs which were audible at the base were evidently due to anaemia.

That such altered conditions of the circulatory system, organic and functional, form an unfavourable element in prognosis regarding the mental disease under which the patients labour, is fully borne out by such statistics as I have been able to collect, as well as by a study of the patient's malady in individual cases.

The percentage of recoveries amongst those of the three hundred or more patients whose heart sounds were found to be pure on auscultation was forty-four. Among the un-recovered are general paralytics, imbeciles, and other unfavourable cases. The percentage of recoveries (*i.e.*, from their mental affection) of those who had organic disease of the heart or vessels was twenty-seven, while of those who showed decided auscultatory evidence of functional disorder of the circulatory system only 26 per cent. recovered, and a large proportion of these were cases in which the mental unsoundness was associated with anæmia, and in which the murmurs present on admission disappeared on treatment concurrently with the improvement in the general health of the patient.

Although the recovery rate in the two latter classes is thus very similar there is a marked difference in the death rate. Of those who suffered from organic disease, up to the present 24 per cent. have died, while of those who suffered from functional disorder of the circulation only 4½ per cent. have died. This would seem to show that while the bodily functions can all be tolerably well performed, and a fair measure of physical health preserved with this impaired circulation, the mental disorder is not more likely to be recovered from than if more marked morbid structural change were present. Indeed this is just what we might expect from a consideration of the peculiar and special connection existing between the cortical tissue and its vascular supply, in that for the proper performance of its functions the former makes very varying and sudden demands upon the latter. As Sir Wm. Broadbent remarks in his Croonian Lectures on the Pulse, “The functional activity and efficiency of the brain are even more dependent upon the blood supply than its nutrition . . . so that blood which would maintain the structural integrity of the brain might be altogether unfit to minister to its functions.”

Various trains of symptoms have been described as associated in the insane with the different forms of valvular disease, but these symptoms appear to have a closer connection with the extent to which compensation has failed. Sane persons suffering from cardiac disease frequently show a certain amount of irritability, despondency, and lack of spontaneity, with hypochondriacal ideas, and these features we find exaggerated in the insane who happen to be similarly affected physically.

Where the cardiac lesion is not very marked, and where there is no distinct failure of compensation, and the other bodily organs have not begun to suffer to any extent, *e.g.*, in some cases of obstructive disease, aortic or mitral, the mental symptoms are such as we might expect to find in connection with an anæmic and badly-nourished brain, and resemble somewhat those present in phthisical and other forms of insanity associated with malnutrition. There is a certain amount of depression present, accompanied by general irritability, sullenness, and suspicion, the patient imagining that he is ill-treated, that plots are being laid against him, and that he is being robbed or poisoned. The various painful and uncomfortable sensations which happen to be present may form the basis of somatic delusions. In cases where there is less compensation, and in rather more serious forms of valvular disease, such as mitral regurgitation, where the physical condition of the patient is more impaired, and he is less inclined for effort, we find similar mental symptoms, but the delusions of suspicion are less likely to find outlet in outbursts of excitement than to lead to a general feeling of resentment against all and sundry.

In the earlier stages of failure of compensation from aortic regurgitation, that form of valvular disease in which the blood supply of the brain soonest becomes deficient, as evidenced by the attacks of faintness and syncope, we often meet with a mental condition similar to that produced by a diminished supply of blood from other causes, such as severe haemorrhage, in which the brain cells for a time exhibit excitation of function, the patient showing great restlessness, often talking and shouting, interfering with others, and completely losing his self-control. In more advanced cases the patient loses all sense of his surroundings, and becomes delirious, this being in many cases the precursor of death. Sir Wm. Broadbent states that in his opinion a minor degree of the disturbing influence which causes convulsions, causes maniacal delirium, and he instances their occurrence in uræmia and brain syphilis. This is probably similar to what occurs in aortic incompetence, where a more slowly established and less severe degree of anæmia of the brain produces mania and maniacal delirium, instead of the convulsions of severe haemorrhage, or of the last stages of aortic incompetence itself.

In all cases, however, where the mental symptoms are due to a distinct and later stage of failure of compensation in

the circulatory system, whatever be the original form of cardiac disease—a condition likely to occur earlier in aortic incompetence, owing to the fact, probably, that no amount of hypertrophy of the left ventricle can keep the arteries sufficiently filled—we have to take into account also the retarded venous return, leading to a stasis of the blood current in the brain. Here the mental symptoms are those caused in addition by the presence of impure blood, which not only fails to afford suitable nutriment for the cells, but actually supplies poisonous matter. Such an increase of backward pressure, acting upon vessels which in these cases are apt to be degenerated, would seem to account for the various forms of recent apoplexies often found after death. The following case exhibited typical symptoms during life, and, post-mortem, innumerable minute apoplexies scattered throughout the brain.

(1.) On admission the patient was sixty-three years of age, and had exhibited signs of mental deterioration for about three years.

His first symptoms were loss of memory and inattention to work, leading to pecuniary loss and enforced retirement from business.

With increasing impairment of memory he began to harbour delusions of suspicion against his wife and family. He thought that they were robbing and trying to poison him, and frequently this led to his refusing food. He complained of vague pains in the head, and his physical health deteriorated greatly. During the month preceding his admission he had become much feebler, and his mental symptoms had increased.

He was now very restless and obstinate, threatened violence to his relatives, refused his food, and was altogether unmanageable.

When admitted he was in a very feeble state. Examination revealed aortic obstruction and incompetence with dilatation. The cardiac action was hurried and feeble, compensation had evidently failed, and his vessels were atheromatous.

In spite of his extremely debilitated state he could not be kept at rest, but was continually groping about, plucking at his clothing, clutching bystanders, and murmuring in an incoherent way. It was impossible to gain his attention for more than a few seconds at a time, and no intelligible information could be extracted from him.

For the first few days after admission he showed marked motor restlessness, though he was hardly able to stand, and usually fell back into bed when he attempted to leave it. He appeared to suffer from a vague sense of uneasiness and to be endeavouring to escape from some haunting fear. After this he became too feeble to move about, and died one week after admission.

At the post-mortem examination a remarkable number of small haemorrhages were found in the brain in every direction. The great majority were about the size of a small pin's head, but a few were somewhat larger. They were most numerous in the right temporo-sphenoidal lobe.

Numerous engorged vessels were noted, and several small intensely congested areas. The circle of Willis was atheromatous, but that condition was not specially evident in other vessels, though there was ample microscopical evidence of disease.

The heart was hypertrophied, the aortic orifice narrowed, and the valves thickened, incompetent, and covered with nodules. This patient before admission had shown mental symptoms commonly associated with cardiac disease, advancing with the gradual failure of compensation. The last few days of his life showed the effects of cyanosis and marked backward pressure, which eventually led to the giving way within a short period of time of innumerable small vessels, and caused the motor restlessness followed by impairment.

So far we have been considering cases in which the mental symptoms depended on defects in the circulation, but while such defect is only one of the many causes of insanity, we have the converse occurring to an even greater degree, and find mental disease producing marked alterations in the circulatory system, both organic and functional. The effect of increased activity of the cortical cells in producing a rapid flow of blood through the brain is well known, and where, as in some forms of insanity, this activity is exaggerated and prolonged beyond normal limits, it is not surprising that the general circulation should show some modification, especially as the cardiac and vaso-motor centres are sure to be disturbed by the abnormal processes going on in the cortex, whilst also in many cases we have to take into account the excessive physical exertions. It is a matter of common experience that when the brain cells are recovering from the storm through which they have passed the circulation readapts itself to the physiological conditions. This must occur before health can be restored. In other cases, however, it undoubtedly happens that the brain is unable to regain this command of the circulation, a pathological condition has been established, and such a condition, even though slight in degree, militates strongly against the mental recovery. Is not this the reason why haematoma auris is usually regarded of such unfavourable import in the prognosis of insanity, simply because it indicates grave dis-

turbances in certain branches of those vessels which supply the brain? The cases to which I have referred as exhibiting on admission signs of dynamical cardiac disturbance, with a comparatively low mental recovery rate, afford proof of the serious result of this loss of balance between the cortex and its blood supply. If we take, for instance, cases in which the heart sounds were found to be impure, we know that such impurities often indicate conditions which in course of time may give rise to actual murmurs, and doubtless this is why such a very large proportion of hearts examined post-mortem in asylums show signs of organic change, while a much smaller number of patients on admission are diagnosed as having heart disease. In fact, in the case of patients suffering from frequent attacks of excitement, we can often note these impurities giving place to actual murmurs. In recent insanity we often see the process going on with more or less rapidity, as, for instance, in acute delirious mania, where heart failure so often supervenes. This may occur with the greatest suddenness, and in cases in which there is already some organic disease of the heart, though perhaps not advanced, no great motor excitement is required to bring about a fatal issue.

This was well illustrated in the case of an early general paralytic who died suddenly in Melrose Asylum.

(2.) On admission there was a murmur of aortic obstruction, but the pulse was regular and full, and there appeared to be no marked impairment of circulation. Compensation seemed to be fully established. His mental condition was one of great exaltation.

Though for the first two days after admission he was rather restless and moved about his room a good deal at night, after that his chief physical exertion was talking and singing. Out of doors he lay among the hay sunning himself, boasting of his powers. This mental excitement eventually told upon him, and one morning nineteen days after admission he complained of feeling faint, and notwithstanding appropriate treatment he died in less than half an hour.

In some cases of acute excitement, when the patient is at or beyond middle life, it is evident that sudden dilatation of the heart occurs, and the condition is one of great gravity, threatening the patient's life for the time being and his mental recovery in the future.

(3.) An example of this was afforded by a female patient aged 46, who was admitted labouring under acute mania, and in whom the mental symptoms had only existed for about a fortnight. Her

cardiac action was rapid and slightly irregular. Her mental condition was one of great excitement. She was quite incoherent, her attention could not be commanded, and she continued to run about, shouting and singing. When exhausted, she would sit or lie down with her eyes closed and an expression of rapture on her face, muttering prayers for strength and guidance, and then shortly resume her excitement. She got regular outdoor exercise, and when within doors endeavours were made to get her to lie down as much as possible. She continued in much the same condition for about a fortnight, when she suddenly collapsed, lying motionless, uttering no sound, and wearing a look of extreme distress and anxiety. Her pulse was feeble, short and fluttering, and ranged from 130 to 150 per minute ; the respiration was sighing, and dilatation of the heart was found to have occurred, with the development of a mitral systolic murmur.

She remained in this serious condition for four days, when, having gradually renewed her vigour under treatment by rest, strophanthus, and suitable diet, she again became excited, left her bed, and resumed her previous condition. This lasted for about ten days, when threatened cardiac failure again occurred, accompanied by oedema of the legs and feet, the conditions being less serious than formerly. Though she remained in bed, she gave evidence of being very delusional and incoherent.

From this time her physical condition gradually improved, but though she became less noisy she showed no other improvement mentally. The circulatory system had evidently become permanently impaired, and a haematoma occurred in the right ear less than two months from the beginning of the attack.

In another female patient, admitted about the same time, certain similar features were observed. Cardiac failure supervened at one period (though not so marked), followed shortly after by a haematoma auris. This patient's physical condition has greatly improved under treatment. Her excitement has disappeared, and she has become an active worker, but her mental condition shows great impairment, and recovery is hardly to be looked for.

The occurrence of haematoma auris in both of these cases is interesting, for, whatever may be the actual cause of this affection, there can be no doubt that these causes have their origin in disturbances of the circulation, and that such disturbances give rise secondarily to the various degenerations to which the condition has been ascribed. In the two cases above mentioned there was, perhaps, reason to believe that the vessel walls were not in a perfectly sound state, though neither of the patients were at the age at which degenerations are usually to be expected.

Hæmorrhages which occur in the insane in other regions of the body have also been ascribed to degeneration \* among other causes, but undoubtedly cases do occur in which degeneration does not exist. A case which I saw lately, in which an attack of acute excitement was accompanied by ecchymoses, is of interest.

(4). The patient was a woman aged 37, who looked considerably younger. She had had three previous attacks of acute mania, and her longest residence in the asylum had been less than four months. There was a strong hereditary tendency to mental disease. She was a stout, well-built, muscular country woman, of ruddy complexion and unusually delicate skin, a type in which ecchymoses most frequently occur. The cardiac action was rapid, and a faint murmur accompanied the first sound in the mitral area. On admission three days after the attack began, she was in a state of great excitement, running about, dancing, shouting, and gesticulating. She was quite incoherent, and paid little attention to what was said to her. A few small bruises were present about the elbows and knees, but these had all disappeared in the course of a few days. During the week after admission, though at times it seemed as if her excitement were about to moderate, on the whole it gradually increased. Occasional draughts of chloral and bromide of potassium secured her some sleep, and she remained quieter for the rest of the night when awake. For a large part of each day she was out of doors under special care. She spent most of the time running up and down, tossing her arms and hair about. When tired of this she lay on the ground with her limbs spread out, calling out in a state of religious frenzy that she was being crucified and stoned. One evening a week after admission, her excitement during the day having been at its height, she was found to be covered with ecchymoses. These must all have appeared about the same time, and must have been very recent.

They were most numerous on the inner aspect of the thighs, a few were visible below the knee and also on the outer part of the thighs. They were well marked on the front and inner aspect of the left arm, the chest, and back of the shoulders, with a few on the right arm. They were roughly symmetrical in distribution, of a dusky red colour, not raised, and did not fade on pressure. The largest, those found on the lower limbs, were from  $1\frac{1}{2}$  to 2 inches in length and one inch broad, and were oval in shape, the smallest were circular and about half an inch in diameter. During the next few days they underwent the usual changes and gradually disappeared. In this case such causes as

\* See *Journal of Mental Science*, Vol. xli., p. 678.

arterial degeneration and diapedesis may be set aside. No recognisable change in the blood was found on examination. I think there can be no doubt that the cause here was a hyperaemic condition of the skin, due partly to vaso-motor paresis or vaso-dilator action, and partly to the frequent and violent muscular action. The extreme congestion of the cutis was shown by other two circumstances which occurred. Shortly before the spots were discovered the patient in her excitement had bitten her thumb. The bleeding was so profuse that the attendants announced that she had bitten off a portion, but upon examination only a comparatively slight injury was found. Just at the time when the ecchymoses were first seen, her excitement was so great that it was considered advisable to give her a hypodermic injection, and though this was done with the usual precautions, it was found that a certain amount of bleeding took place. The ecchymoses, which occurred on parts considerably protected, were evidently not due to injury. This patient made a good recovery. Though she continued in a maniacal condition for some time, she at no subsequent period was so excited, and when gradual improvement had taken place was discharged after a residence of  $3\frac{1}{2}$  months.

Since then such marked disturbances are produced in the general circulation by or in connection with mental conditions, it is to be expected that an examination of the pulse should afford an indication of certain of the changes which occur, whether these are the effect of the mental disease upon the heart and general physical condition, or whether they are alterations in blood pressure produced by nervous influences acting upon the vessels. Considerable attention has been paid to the subject by different observers, and various characteristic states of the pulse have been shown to accompany various forms of mental disease.\* In many cases doubtless the particular variety of pulse depends to a great extent on the patient's general condition, or, as in the case of acute mania, upon the physical exertion which the patient undergoes, though it seems certain that definite forms of mental disease have their typical pulse.

The effect of the mental condition upon the circulation of particular areas of the body is shown in an interesting way in a patient whom I have had the opportunity of observing.

(5.) This woman has been an asylum patient for some years. For the first part of her residence she had long periods of comparative

\* *Dictionary of Psychological Medicine*, pp. 1051, 1052, and pp. 1189, 1190.

sanity during which, though timid, shy, and reserved, she used to occupy herself actively, was neat and tidy in person, and sensible in conversation. For eight or nine months these intervals have been of much briefer duration, and have occurred less frequently. During her states of aberration she is entirely changed, does no work of any sort, tears her clothing, covers herself with dirt, is sometimes noisy and incoherent, at other times standing in a corner, looking as if on the point of an outbreak of excitement. Whenever the mental relapses occur, her hands show characteristic signs of Raynaud's disease. At first they may sometimes be blanched and cold to the touch—signs of local anaemia due to contracted arterioles—when the radial artery is found to be small. But venous congestion soon ensues, sometimes in patches, and the hands become livid and swollen, slight blebs having even been observed. The condition is seen even on the warmest days, and is unaffected by exercise.

During the remission of the mental symptoms the hands are found to resume their normal appearance. Under treatment these appearances have become less distinct.

Turning from local to more general states of the circulation, among the various alterations of blood pressure associated with mental conditions the one to which I would more particularly refer is the increase of vascular tension associated with the onset of a stuporose condition of the patient.

(6.) In the case of one chronic patient, a woman aged 58, occasional stuporose attacks lasting for a few weeks are always accompanied by a high tension, more than once apparently checked by the administration of mercurials.

In a young man who has had several acute attacks, and whose condition has become one of mild chronic mania, a stuporose attack recently supervened, and his pulse tension was found to be remarkably high. His radial artery was so contracted that a superficial examination might have led one to the belief that the pulse was very feeble, had it not been that it was found to be practically incompressible, and that pressure increased the force of the beat. The administration of croton oil or calomel, which lowered the tension, has always brightened him up a little, and he has steadily, though slowly, improved, coincident with a reduction of the high vascular tension.

The general result of increased blood pressure throughout the system is a slowing of the current, and on account of the special physical conditions under which the cerebral circulation is carried on, the effect is not less likely to be marked

in the brain than elsewhere. Such a condition of stasis will throw upon the lymphatic channels a task which they may, perhaps, not be able fully to carry out, and that such may be the connecting link between the high vascular tension and the mental phenomena of stuporose states, is further borne out by the general cerebral oedema which has been shown to exist in the brains of those dying in a state of stupor.\*

(7.) In the case of a certain general paralytic, the connection of stupor with high pulse tension and with a physical condition which threatened to put a speedy end to his life was very marked, as also was the great improvement, mental and physical, which followed a reduction of tension.

It is impossible here to do justice to the interesting features which his case presented, but a very brief account may serve to show some of them. He had shown symptoms of insanity for fully two years and a half previous to the onset of the symptoms under review, and his condition was still the familiar exalted, troublesome stage of general paralysis. He was full of ambitious schemes, had lost all self-respect, and was indecent, erotic, and disreputable in his habits. He was frequently noisy at nights, pugnacious, and at times very difficult to manage. The tongue was tremulous, the speech to some extent affected, and the reflexes exaggerated.

He then passed into a stuporose condition, wore a fixed expression of face as if he dreaded the onset of some great evil, would stand in one position for hours, and was speechless, obstinate, and resistive. Shortly before the onset of this phase he had shown similar signs for some days, but an attack of influenza with high temperature had restored him to his noisy, excited, and frequently violent condition. His general health became much impaired, he was wretchedly thin, and remained in bed. Severe convulsions then occurred, with rise of temperature to 101°F. The convulsions were at first confined to and affected the whole of the left side, and when they became general were always more marked on that side.

The contractions continued without intermission for four hours, and during that time he had several exacerbations with occasional loss of consciousness.

His pulse gave evidence of marked tension, and croton oil was administered. A few hours afterwards he answered questions addressed to him, though he had not done so for weeks. Bromide and iodide of potassium were administered, and means were taken to reduce tension. He improved to a considerable extent mentally, and was able after some time to be out of bed for several hours daily. About two months after the first occasion he again had a return of the convulsive seizures. Every three or

\* Etoc Demazy on "Stupidité."

four seconds spasmoid contraction of the muscles was observed, causing jerking of the leg and arm, and of the head to the left side. These continued for five days, ceasing only during a few hours, and in addition he had several attacks of severe general convulsions. Motor power was much impaired, to the extent for some time of absolute paralysis.

His pulse was of high tension, and the second cardiac sound was accentuated in the aortic area. He was treated with iodide of potassium and iodide of iron, and his condition gradually, but steadily, improved. His weight increased considerably, and he was able to leave his bed nearly five months after the convulsions began. For nine months he has been a saner man than he had been for years. He has given up his boastful schemes and delusions as to his great strength and possessions. He has been able to converse rationally, reads a great deal, takes an intelligent interest in what he reads, and remembers well the incidents of his life. He has also been able to occupy himself usefully, and assisted materially with the ordinary ward work. The impairment in speech and the pupillary signs are distinctly noticeable, and he slightly drags his left leg in walking. Means have been taken to reduce the arterial tension by the administration of calomel when required, and one or two convulsive attacks which he has had have been cut short and prevented from assuming serious proportions.

Dr. Pevan Lewis states that general widespread convulsions "usher in the gravest reductions, often leaving the subject a complete mental wreck," so that the case described must be regarded as a remarkable exception to the general rule. Given the formation of a false membrane under the dura mater, such convulsive and paralytic symptoms as this patient exhibited may be readily explained by such haemorrhages as are known to occur in this connection, and to which a predisposition would be established by the high blood pressure.

Such, then, are some of the conditions which illustrate the connection between the circulatory system and abnormal mental processes. While in certain cases disorder of the circulatory system is a cause of insanity, much more often mental disease produces circulatory disorder, but as the diseased brain depends to a great extent for its restoration to health upon a ready response to its demands upon the vascular system, so it becomes a matter of vital importance that the disturbances set up in the latter may not have passed beyond the bounds of control. The importance of a thorough under-

standing of the connection between the two cannot be overestimated, for, however we treat our patients, by diet or drugs, baths or massage, rest or exercise, we must to a considerable extent seek to influence the brain cells through the circulatory system.

*Discussion on Dr. Edgerley's Paper.*

Dr. ALEXANDER ROBERTSON—I think that the way in which the subject has been studied by Dr. Edgerley shows the true scientific spirit. I could have wished that Dr. Edgerley had shown us sphygmograms, for it is rather difficult to decide upon pulse tension and to differentiate between it and atheroma of the vessels. There is necessity for being extremely careful to appreciate what is pulse tension and what is thickening or atheroma, especially when atheroma is also present, to decide if only atheroma or high tension in addition. In some cases of stuporous insanity it is perhaps the opposite condition that exists, a languid state of the circulation in the brain. I remember showing a case of catalepsy\* some years ago, in which the circulation was extremely torpid, and it seemed important to establish greater activity of the circulation by the application of hot and cold water to the head. The result was that the patient recovered. I think that recovery was due to stimulating the circulation. I observed that Dr. Edgerley largely used calomel and iodide of potassium. These are both efficacious, but I felt surprised that he did not mention nitrite of amyl or nitro-glycerine in this connection. The root of the matter, however, is not defect in circulation at the outset, but a condition of the brain cells and of the nervous system, and it is often disappointing when one is able to alter the state of the circulation, to find how little effect is produced on the nervous system.

Dr. TURNBULL concurred with Dr. Robertson in appreciating the great value of the paper, and the suggestive points which were brought forward in it in regard to clinical observation and treatment.

Dr. EDGERLEY—In reply to Dr. Robertson, I may say that I did obtain some sphygmograms, but with insane patients it is difficult to get them, and when they are got the resistance which has taken place often renders them comparatively worthless; and, after all, sphygmograms are chiefly useful for demonstrating to others the features of the pulse which have already been made out by the finger.

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*Dangerous Lunatics Charged with Crime: Note on Operation of 15th Section of 25 and 26 Vict., cap. 54 (Lunacy Statutes, Scotland).† By JOHN CARSWELL, L.R.C.P.E., L.F.P.S.G., Certifying Medical Officer, Barony Parish, Glasgow.*

The case of W. C., a boarded-out lunatic, who recently made a murderous attack upon the wife and child of his guardian, has brought under public notice and discussion several matters connected with lunacy administration in Scotland. It would, obviously, be improper to discuss questions here which are still under the responsible consideration

\* *Journal of Mental Science*, Vol. xxxiii., pp. 163 and 259.

† The Scottish Lunacy Act, 25 and 26 Vic., cap. 54, section 15, provides that "When any lunatic shall have been apprehended, charged with assault or other offence inferring danger to the lieges, or when any lunatic shall be found in a state threatening danger to the lieges, or in a state offensive to public decency, it shall be lawful for the Sheriff of the County in which such lunatic may have been

of the General Board of Lunacy. Therefore I do not intend to refer to such questions, and may venture to express the hope that the subsequent discussion will be confined to the one point raised, viz., the mode of procedure adopted by the criminal authorities.

The question of the criminal responsibility of persons supposed to be insane is intimately connected with the methods of legal procedure. In other words the proof of an alleged criminal's insanity, and the provision for his care thereafter, if found to be insane, may depend quite as much upon the legal procedure adopted by the Crown as upon the actual facts and requirements of his case. That being so there is, I venture to believe, justification for bringing under review at the present juncture (while the Association is considering the question of criminal responsibility)—this case, which was dealt with under the 15th Section of 25 and 26 Vic., cap. 54.

I do not think it necessary to detail the previous history of the patient further than to say that he was first admitted to the parochial asylum in 1886, was resident there for more than five years, and has been a boarded-out patient since 1891. He suffers from dementia, secondary to melancholia, with occasional attacks of excitement. He was not of the criminal class, and had never previously committed a criminal act. On 6th January, 1896, at Ladybank, he seriously assaulted his guardian's wife and killed her child, disappeared, and was apprehended at Burntisland on the following day. After the case had been fully investigated by the Procurator Fiscal the Crown authorities decided to deal with the prisoner under the 15th Section of 25 and 26 Vic., cap. 24, and consequently he was handed over to the Inspector of Poor to be committed by him to an asylum, a guarantee for his safe custody having been given to the satisfaction of the Sheriff.

apprehended or found, upon application by the Procurator Fiscal or the Inspector of Poor, or other person, accompanied by a certificate from a medical person, bearing that the lunatic is in a state threatening such danger, or in a state offensive or threatening to be offensive to public decency, forthwith to commit such lunatic to some place of safe custody." After providing for due notice to be given, the section goes on to state that "if the Inspector of the Parish does not within 24 hours undertake, to the satisfaction of the Sheriff, to make due arrangements for the safe custody of such lunatic, the Sheriff shall accordingly proceed to take evidence of the condition of such lunatic, and upon being satisfied . . . he shall commit the lunatic to any asylum . . . and such lunatic shall be detained in such asylum until cured, or until caution shall be found for his safe custody, in which last case it shall be lawful for the Sheriff, upon application to that effect, and on being satisfied as to such caution . . . to authorise the delivery of the lunatic to the person so finding security," etc.

During the last four years sixteen persons have been dealt with under this 15th Section at the instance of the Procurator Fiscal of Glasgow. Each of those persons was found in a state threatening danger to the lieges, or was charged with a crime of violence or inferring violence. Eleven were cognosced and committed to asylums as dangerous lunatics, and the remaining five were provided for to the satisfaction of the Sheriff by the Inspector of Poor. I do not happen to have at hand the actual number of persons belonging to Glasgow charged with serious crimes who have been indicted before the High Court during the same period, and in whose cases the plea of insanity either in bar of trial or in acquittal was sustained, but it cannot be more than eight, that is to say half the number of those dealt with under the 15th Section. Moreover, it is not to be understood that these figures represent all the persons apprehended by the police and dealt with as lunatics, because a very considerable number of persons are apprehended on petty charges, and when found to be lunatics are reported to the Inspector of Poor and dealt with by him, without the intervention of the Procurator Fiscal. I have quoted these figures to show that a considerable number of persons who have committed, or have threatened to commit, serious crimes are dealt with under the 15th Section, and that they number relatively to the number of insane persons indicted on charges of serious crime before the High Court at least two to one.

The procedure to be adopted in each case is entirely at the discretion of the Crown officials, the Crown counsel in serious charges and the Procurator Fiscal in less serious charges. It is a large discretion, implying great responsibility. The public interests concerned, especially as regards the investigation by due process of law of the facts of the alleged crime, and the prevention of similar crimes, are no doubt the first care of the public prosecutor, but he has also in the exercise of this discretion to consider in the case of a lunatic what will best promote the care and treatment of the patient and his future prospects, in view of his possible recovery and liberation.

Without attempting to distinguish between the criminal lunatic department of the general prison and an ordinary asylum as regards their suitability respectively as hospitals for the cure and treatment of patients suffering from recoverable forms of insanity, I may hazard the opinion that, if choice were given, neither the friends nor the medical

advisers of the patients would hesitate to choose an ordinary asylum in preference to the lunatic department. And even in the case of a patient suffering from an incurable form of insanity the choice would still be made in the same way. Such considerations do not, of course, occupy the first place in the reasons that weigh with the public prosecutor in deciding upon the legal procedure to be adopted in these cases. His business is to protect the public from similar occurrences, but when that end can be secured without indictment it is surely right to give the patient the benefit of the less objectionable procedure.

In the case of a lunatic charged with a crime, regarding whose mental unsoundness and irresponsibility no doubt exists, nothing is to be gained as regards the public investigation of the facts of the case by indicting the prisoner and bringing him before the High Court, because the evidence taken by a judge of the High Court when insanity is pleaded in bar of trial is practically the same as that taken by a sheriff in a cognition under the 15th section.

Under the 15th section the prisoner gets whatever benefit there may be in having his case more expeditiously and less formally brought to an issue, and his friends and relatives are spared the greater publicity and cost of High Court procedure, and as a result of being so dealt with his confinement is as a patient in an ordinary asylum instead of a criminal in the lunatic department of the general prison. When the insane acts of a person who has in his insanity committed a crime fall to be considered by the public prosecutor because they are also criminal acts, the element of crime in those acts is liable to assume an importance which, from other points of view, especially the medical, it ought not to have; and thus it may happen, and, I believe, has happened, that insane persons who, having had the misfortune to be badly cared for or imperfectly nursed, and so have committed acts of violence, have been treated as lunatic criminals instead of as lunatic patients.\* Moreover, inasmuch as certain offences are considered more serious from a legal point of view than others, it may occur that a patient who in his vagaries commits a number of violent acts

\* In illustration of this the case of Mrs. L. may be quoted, who, in the restless and violent excitement of an attack of puerperal insanity, murdered her child, manifestly without criminal intent or even homicidal impulse. She was placed in Perth criminal lunatic department, and detained there for several years. One can hardly doubt that the proper place for her was an ordinary asylum, and the proper legal procedure under the 15th section.—J. C.

commits one that from the legal point of view is of serious character ; that man will probably find himself charged with that one act as a criminal offence, and will be dealt with as though that act was the one proclivity or impulse of his insane mind. I have within the last few days seen a case in point. A man, charged with a theft, on being apprehended and taken to the police office, was placed, unattended, for a short time in a side room. While there he removed the grate from the fireplace, placed a live coal against a door in the room, and he made an attempt to get up the chimney. The woodwork of the room took fire, but it was easily extinguished. He was then removed to a cell, one side of which has cage-like iron bars to permit the turnkey to keep watch upon cases placed there. While there he pranced about, pulled asunder some of the planks of the plank bed, climbed the iron bars, and knocked his head through the plaster of the roof, and otherwise conducted himself after the manner of a person suffering from acute mania. From the catalogue of his insane and violent acts, the one act of fire-raising was selected and made a criminal charge against him by the police, and he was thus considered to be a criminal, and possibly also a lunatic, of a particularly dangerous type ! He was dealt with under the 15th section, but, probably, he might have been quite as suitably dealt with in the ordinary way by the Inspector of Poor.

Homicide, attempted homicide, and persistently manifested vicious and violent acts are all insane acts, which should bring the accused person's whole case under the careful review of the public prosecutor ; but if the grounds upon which I have endeavoured to justify a somewhat free use of the 15th section have reason in their favour, it will not follow that procedure by indictment and confinement in the lunatic department of the general prison will be necessary in every case of even serious crime.

I am aware that objections may be raised to placing insane persons who have committed criminal acts in ordinary asylums, from the point of view that it increases the risk of accidents in these asylums, and also that to the extent to which such persons are detained as fiscal's cases, in other words as quasi prisoners, the character of the institution is changed from a hospital to that of a modified prison. The answer to the first objection is that the Legislature intended to give even dangerous lunatics the benefit of ordinary asylum care and treatment, else the 15th section would not

have been framed ; and the answer to the second objection is, that it is at least better to confine a lunatic who has committed a crime as a quasi prisoner in an ordinary asylum than to confine him as a criminal lunatic in a prison.

*Discussion on Dr. Carswell's Paper.*

Dr. MACDOWALL (Chairman)—There is a hardship in reference to many English cases sent to Broadmoor as criminal lunatics. They are often persons who have been neglected, and have thus committed a crime through the fault of others. Take a case of puerperal mania where a woman destroys her child. She is allowed to do so by the carelessness of her friends, and I think that it is exceedingly hard that she should be sent to a criminal asylum, and that it is a disgraceful thing that the negligence of the friends escapes unpunished.

Dr. URQUHART—I think that the principle that underlies this question is, does the person belong to the criminal class? Is he of the criminal type, or is he of such distinctively dangerous habits that he requires segregation in a special institution? Every now and then we find these very virulent cases in ordinary asylums, and the consequence is that the ward in which such a person is placed is deteriorated to suit his special needs. Surely this is detrimental to the majority, and should therefore not be permitted. We know that it was enacted that Royal Asylums should not be bound to take criminal lunatics. They were specially exempted and with good reason. I rather suspect that the puerperal mania case cited by Dr. Carswell is an old familiar friend. We recognise the hardship and the impropriety of such an incident; no one here will defend it, much less argue for it; but we must be careful not to go to the other extreme. I am sure that the 15th section, with the amendments made upon it, is an admirable provision for the purpose. I only deprecate the use of it in such manner as to permit the most dangerous members of the criminal classes to evade the Lunacy Department of the General Prison, and thereby degrade and deteriorate the ordinary asylum of the county. No one at this time of day will press that all criminal lunatics should be forced into the Perth Prison. I have been told by some who know that they prefer Broadmoor to the ordinary English County Asylum.

The CHAIRMAN—Yes, I have heard that. They spend a very large amount on criminal lunatics at Broadmoor.

Dr. URQUHART—And they pay them for their work, which is even more significant.

Dr. G. M. ROBERTSON—I had a patient yesterday admitted from Broadmoor, and he said that it was not a bad thing to be a criminal lunatic at Broadmoor.

Dr. URQUHART—That is a plea for improving Perth, and not for disapproving of this particular method of dealing with criminals. I think we should exercise very careful vigilance in this matter to make sure that this side of the question is not overlooked.

Dr. ALEXANDER ROBERTSON—The law permits of milder criminal cases being committed to an ordinary asylum, and it is only those of the worst type, where a person is killed, who are sent to Perth. There is no doubt some hardship, but I see a distinct objection to admitting some such persons to ordinary asylums. There is an objection to a person who has taken away life being amongst the ordinary patients. Both patients and patient's friends feel this. The unpleasant and detrimental association should not be forced on our patients, and, as Dr. Urquhart has suggested, it is a question of making Perth more like an ordinary asylum, and so keeping such persons apart from the ordinary communities of the insane. I think there ought to be power of dealing with extremely violent cases, and removing them from ordinary asylums when they are proved to be extraordinarily dangerous.

Dr. TURNBULL—I think that everyone must feel that the 15th Section affords

very good procedure for many cases. It provides very suitably for them, and it gives a large option, which is needed to deal with the different circumstances of different cases. The point that Dr. Robertson raises is a very old and very important one. Dr. Tuke long ago argued that there ought to be a provision by which these dangerous lunatics should be capable of being removed from the ordinary asylum and placed under State care. I think there is one point that has not been quite brought out, and which it is desirable to keep in mind, namely, that if the patient gets better a very serious responsibility is placed upon the Superintendent about discharging him. If that woman whose case has been referred to had gone out and resumed married life, and again run the risk of an attack of insanity following the puerperal condition, it would be a very serious matter. I have just now a patient who committed a murder who has got better, and when he insists upon getting away I have to say to him, "Well, I cannot certify that you are insane just now, and if you insist on it I must liberate you," but when I speak to the Procurator Fiscal he says, "Is there no means by which you can put that man where he won't run the risk of breaking down again, because he cannot bear much strain?" On the whole I think this 15th Section is good, and that the large amount of option allowed by it is good, but in addition we should ask for a provision to get the dangerous lunatics transferred to places where they would be under State control instead of under the individual Superintendent of the ordinary Asylum.

Dr. YELLOWLEES—I agree with what you say. I think that each case demands caution, and is not to be determined by legal technicalities, not by the special crime, but by the condition of the patient. There is a curious way of avoiding the 15th Section which has not been mentioned. It has become the custom for a Fiscal to hand the case over to the Inspector of Poor, and to bind the Inspector not to discharge that patient from the asylum without his sanction. That is an evasion of the law and quite unjustifiable. There is no excuse for it. The Fiscal must hand the patient over to the Inspector, when he becomes an ordinary pauper case, or he must keep it as a "Fiscal" case. That middle way should not be countenanced at all. We are entitled to get the help of the Lunacy Commissioners when a case is admittedly of an unduly dangerous character, and there ought to be authority to remove such a person from our wards. There is a difficulty in discharging these Fiscal cases. It is very valuable to have the power of saying "You are sent here by the Fiscal, and you cannot get away till you are certified sane," but there is often great difficulty in discharging a person to whom nobody will give a certificate that he can be dismissed without danger, which means that the man must be perfectly recovered. Yet there are many cases which ought to be discharged if you can only stretch your conscience sufficiently to take the responsibility. I have again and again said that a man can be discharged "without any serious danger," or "without any apparent risk," but that will not be accepted. You must use the *ipsissima verba* of the Act. I appreciate the paper as discussing one of the practical questions that we should have our attention called to.

Dr. WATSON—I do not know whether the case of this patient who killed the child will come up for further consideration.

Dr. CARSWELL—No, it is finished.

Dr. MACPHERSON—with regard to what Dr. Yellowlees has said, may I ask Dr. Carswell whether W. C. is a "Fiscal" case or not? Is he a "Fiscal case" or an ordinary pauper lunatic?

Dr. CARSWELL—It is a Fiscal case.

Dr. YELLOWLEES—Is there an undertaking given by the Inspector that he won't be discharged?

Dr. CARSWELL—Yes, certainly.

Dr. YELLOWLEES—Then that is a thing not recognised by the Act, and the Superintendent of the Asylum should not recognise such a condition.

Dr. URQUHART—The section deals with a person who is dangerous or

offensive to public decency, and the fact has to be advertised in the newspapers if he is to be tried before the Sheriff. It may be modified in this way, that the trial may never come off on the Inspector agreeing to take the responsibility to the satisfaction of the Sheriff.

Dr. CARSWELL—Which is one and the same thing as the Procurator Fiscal.

Dr. YELLOWLEES—I know that the Commissioners do not think that. Such a condition has been attempted to be imposed upon me again and again, but I have always ignored it.

Dr. CARSWELL—I have gone into that point with the Fiscal, and he says that it is practically one and the same thing. Here the term "Sheriff" is used. Now the Inspector of Poor never comes in contact with the Sheriff. He comes in contact with the Procurator Fiscal, and he gives the Procurator Fiscal such a guarantee and assurance as if he gave it to the Sheriff. If necessary the Sheriff could interfere and ask for the Inspector, but that course is not followed. It is usually done through the Procurator Fiscal, the application having been made by him.

Dr. YELLOWLEES—If the patient recovers the Medical Superintendent has the same power to discharge him as if he were an ordinary pauper lunatic, as if the Fiscal had nothing to do with him. If the Fiscal wants to keep such a hold upon the patient he must commit him as prescribed by the law. On that I am quite clear. The terms of commitment must be different from the ordinary pauper form. There must be something to show me that that person is in a special category. If he comes here as an ordinary pauper lunatic, I have nothing to do with any understanding the Fiscal may have with the Inspector, and I have no communication to that effect. That section is not quoted or alluded to in the paper which sends the patient to the asylum.

Dr. MACPHERSON—When I have no official intimation I hold that I can discharge the patient when I so decide.

Dr. G. M. ROBERTSON—These cases are received by me from the Inspector of Poor, and I never get special notice.

Dr. URQUHART—I had a case lately dealt with under this section. He was a clergyman, and it was manifestly detrimental to him and to his family to advertise that he was a lunatic; and, therefore, when the Procurator Fiscal apprehended him the Inspector of Poor intervened with the necessary caution.

Dr. YELLOWLEES—But that is not a "Fiscal case."

Dr. URQUHART—Then why did the Inspector of Poor intervene? It seems to me that the whole purport of the section is to permit of action less stringent than is unavoidable on a public trial.

Dr. YELLOWLEES—Unless a man's friends intervene the Inspector of Poor must.

Dr. URQUHART—This paper was signed by the Inspector and the daughters jointly.

Dr. YELLOWLEES—That made all the difference.

Dr. G. M. ROBERTSON—I think it was for the payment of the board, that they would be responsible for any expense. He was committed under the 15th section.

Dr. MACPHERSON—No.

Dr. CARSWELL—I agree that it is proper to remove such very dangerous patients who may be inmates of ordinary asylums, but I don't think that comes within the scope of my note. I was dealing with patients before their being sent to an asylum, when they are under a charge of crime. I could have given cases that have occurred in my own experience within the last two or three years that might quite well have been dealt with under the 15th section, but were dealt with by the Crown and sent to Perth. One of them was an old woman, who, in a condition of restless melancholia, murdered her grandchild and endeavoured to poison herself. She was sent to Perth, but might have been dealt with in an ordinary asylum. As to Dr. Watson's question as to inquiry

by due process of law into all the facts of the case, I would just point out that there would have been no further inquiry than actually took place in this man's case, supposing he had been indicted and brought before the High Court, because insanity would have been pleaded in bar of trial, and he would have been forthwith committed to Perth, the facts relating to his state of mind only being brought before the Court.

Dr. URQUHART—What is the difference from a pecuniary point of view?

Dr. CARSWELL—The difference is simply that the Parish keeps the patient instead of the Crown.

Dr. URQUHART—Precisely. Is not that a feature which requires watching?

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*On Mental Fatigue and Recovery.* By W. H. R. RIVERS,  
M.D., M.R.C.P.\*

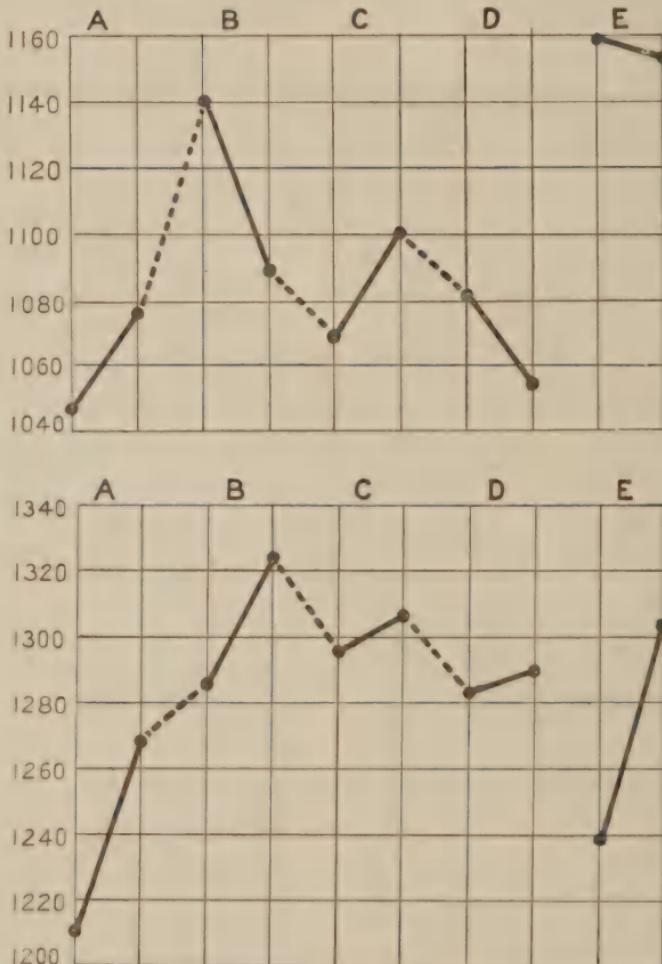
I propose, in this paper, to give a brief account of an investigation carried out in Professor Kraepelin's laboratory at Heidelberg, and undertaken with the view of gaining some first-hand knowledge of the methods I brought before the notice of the Association last July.

The problem investigated was comparatively simple; it was to ascertain the duration of the pause necessary for recovery from the effects of the fatigue induced by half an hour's mental work. The work done was addition. In this method rows of figures are printed in books, and opposite each pair of figures is written as quickly as possible the result of their addition; when the result is in two figures, only the second is written. At the end of each five minutes a clock sounds, and a mark is made so that at the end of a period of work, the number of additions done in each five minutes can be determined.

Two series of experiments were carried out, each lasting six days. In each, the period of work was half an hour. On the first, third and fifth days (long days) of each series, four periods of work were done, separated from each other by periods of rest; in the first series this period of rest was of half an hour's duration; in the second series the pause lasted one hour. On the second, fourth, and last days (short days) of each series only one half hour's work was done. The two series resembled each other in every respect except that in the first the period of rest after each half hour's work was also half an hour, while in the second it was one hour. The general results are shown in the accompanying charts, when each round mark indicates the number of

\* Read at the Cambridge Meeting of the Medico-Psychological Association, 20th February, 1896. A detailed account of the investigation will appear in Kraepelin's *Psychologische Arbeiten*.

additions performed in each quarter hour. Consequently the course of the continuous lines joining the marks indicates increase or decrease in the amount of work done. The dotted lines correspond to the pauses. The letters A, B, C, D indicate the four periods of the long days, while E



indicates the work of the short days. In each case the figures give the mean of those of three days.

Before comparing the charts I may mention that all conditions were kept as equal as possible in the two series. To avoid the influence of hunger, a certain quantity of milk was taken at the end of each period of work. No alcohol was taken during the whole investigation; tea and coffee

only after the work of the day was over. The rest taken during the pauses was as complete as possible.

The normal course of a curve of work is a rise at first, due chiefly to practice and partly to the factor termed by Kraepelin "Anregung." This is followed sooner or later by a fall due to fatigue. On comparing the charts of the two series, it will be seen that this fall in the third and fourth periods is much greater in the first series than in the second. Secondly, if the factor of fatigue has been eliminated as much as possible from a curve of work, the curve of work of the following day should begin at a lower level owing to loss of the effects of practice during twenty-four hours, and in the second series this is seen to be the case; the work of the short days falls below in amount the end performance of the preceding long days. In the first series on the other hand, the condition is very different; the work of the short days is much above the level of the end performances of the previous days, and it may be inferred that but for the great influence of fatigue in the latter periods of the long days, the end of the curve D would have been above the level of E. A third point of difference is seen on comparing the amount of work done in the two halves of each period. In the second series in each case more work was done in the second than in the first quarter hour of each period; the line in each case rises; in the first series, on the other hand, the line shows a marked descent in the second and fourth periods, and the rise in the third period was due to a disturbing factor noted at the time which led to a great diminution in the amount of work done in the first half on one day. On two out of the three days of which it gives the mean result, the course of the line was descending.

These three differences all point in the same direction; and they show the much greater influence of fatigue in the first series and lead to the conclusion that half an hour's complete rest is wholly insufficient to neutralise the fatigue induced by an equal period of mental work. Even with a rest of one hour, the effects of fatigue were not completely eliminated.

The charts show the quantity of work done in the two series, and I also investigated the quality of the work. The number of mistakes made was extremely small; in the first series .085 per cent., in the second series .104 per cent. The number of corrections was larger, *i.e.*, cases in which mistakes made had been immediately corrected; the

numbers were .92 per cent., and .98 per cent., for the two series. The number of mistakes was too small to allow any conclusions to be drawn, but it may be noted that the second series showed a slightly greater percentage of both mistakes and corrections, and this may be connected with the much greater rapidity with which the process of addition was carried on in the second series. As regards quantity of work this investigation gives a very definite result. This result is however derived from observations on one individual only, and does not justify generalisation on the ratio of the periods of mental fatigue and recovery. I bring it before the Association chiefly as a concrete example of one of Professor Kraepelin's methods.

After some inquiries in regard to the interpretation of the diagrams, Dr. MERCIER said—We must agree that the base of all science is measurement, and in that regard the observations of Dr. Rivers are of the very highest importance, though I should be afraid they are open to considerable fallacies which would vitiate their value to a very considerable extent. The work is measured, as I understand it, by the addition of pairs of figures. Two figures are added, then another two, and so on, and the numbers of pairs of figures which have been added are taken as representative of the work done during a certain period of time. The method seems, on the face of it, to be a fair one, but as a matter of fact and experience it is a very much easier thing to add together certain pairs of figures than certain other pairs. For my own part 7 and 3 make a couple which in common addition I always treat as one figure, they are so easily added together, whereas 8 and 3 I have to pause over. It is a much longer process to add 8 and 3 than 7 and 3. In the same way 5 and 6 always take me considerably longer than would 8 and 4, and so on, and I suppose we all have idiosyncrasies of this kind which would render it harder for us to add together certain pairs of figures than other pairs, so the actual amount of work done in a given time is not strictly represented by the number of couples of figures added together. Supposing a difficult couple were to occur very frequently in one series, the work done in adding that series together would be considerably greater than if that difficult couple occurred more seldom and easier couples more frequently. So although it is a test, probably as good as can be taken, yet it is by no means a certain and absolute test of the amount of work done in a given time. I am not prepared to suggest a better, and I welcome very heartily any method which can be devised for applying the science of numbers to our mental processes, but I am afraid it is open to that fallacy, and it may be to other fallacies which I won't take up the time of the meeting by mentioning, which may possibly vitiate the results. It is particularly desirable that work of this kind should be undertaken, but at the same time I fear the results will not be commensurate with the amount of labour involved in obtaining them.

Dr. WIGLESWORTH—I quite agree with Dr. Mercier as regards measurements, and that these results are very much to be welcomed, but I do not think they have so far given us any information we did not possess before. It is extremely interesting to have knowledge confirmed in this highly scientific manner; at the same time we were already acquainted with the fact that when we commence mental work the commencement is never so good as the secondary period, *i.e.*, in the second half hour our mental activities are very much keener than they were when we first sat down. I don't know whether Dr. Rivers has any explanation to offer of that. I think it is largely due to the vascular supply, the brain attracting to itself a larger amount of blood as the work is proceeded with.

Dr. BOWER—I take it that measurements of the mental abilities of individuals are not confined to adding up figures. There are other methods, as, for instance, by

committing to memory certain words; and individuals would vary in the ability displayed in their various methods. For example, in committing words to memory, I am certain I should be a long way behind a great many others, and possibly in adding figures I should be considerably ahead. I think there was one point with regard to which Dr. Rivers' measurements did give some new information, viz., that half an hour of rest is not enough to counteract the result of half an hour's work.

Dr. RAYNER.—The suggestion which has already been made that the work would have been done better if the vascular supply had been thoroughly established, is one which strikes one forcibly, and the question is whether that may not be the reason why, with a short period of rest, there is no falling off of work, whereas in the longer period there is; the vascular supply having fallen to its low level in the longer period of rest, and not in the shorter period. One would like to know whether Dr. Rivers has made any observation with regard to the external temperature of the head during his observations. One knows in active mental work, especially such work as that of adding up figures, the temperature of the brain externally rises rapidly, and of course it falls more or less rapidly. I should think it would be of interest to observe whether the rate of falling bears any relation to the rate of loss of power of work in the five or fifteen minutes' period.

The PRESIDENT.—I think, gentlemen, that it is much easier for us, knowing so little about this question, to see the great difficulties in regard to arriving at any conclusion of a practical sort. Perhaps it is right we should do so, because when entering upon any great field of investigation which requires most complete accuracy to substantiate the results upon which to build the ultimate fabric, we have to deal with factors that we are not completely and thoroughly acquainted with. No doubt each one of us knows the kind of work which he affects, and any one of us in this room might easily begin a comparison in his own mind by asking himself with what amount of spontaneous energy he is able to sit down to a rubber of whist, or with what amount of spontaneous energy he is able to sit down to write out his case book. I think that in a test of this kind, if a sufficient number of individuals could be got to compare their individual experiences, that ultimately some conclusions might be arrived at, first of all at the length of the period of what is called "anregung" here, and, on the other hand, the duration of the period of depression, where the work has an element of boredom in it. Again, one individual could take to himself and compare in his own mind the results with regard to this question of practice and of fatigue and recovery from fatigue from a succession of winning or losing rubbers at whist. It is a very simple comparison, involving an element of excitement, and each one of us might be able to compare what period it took us to recover from the fatigue involved, not only where the rubbers were successful, but where the rubbers were unsuccessful. It is very difficult to get at the kinds of work that are interesting to individuals, and being able to institute that comparison is the only possible method to ensure accuracy of results. I think that the question of what I might call the spontaneous energy of individuals is of great moment, but that is a long way ahead of those more simple introductory methods such as Dr. Rivers has submitted to us to-day. With regard to this, at any rate it is quite evident that results of a practical sort can be arrived at. Whether they may be beneficially applicable is another matter, but no doubt Dr. Rivers can tell us his own variation as regards the capacities he has on one day for doing certain work, and the amount of fatigue he has had to recover from before he is able to come up to his normal standard. There is no doubt that whatever difficulties there may be in the wide and extensive application of work of this sort its immediate interest is very great, and that with a sufficient number of investigators carrying out work on the same lines in the end the science may be so applied as to be valuable and beneficial to us in our dealings with the results of mental fatigue or with the results of diseases arising from mental fatigue. I think we must be extremely grateful to Dr. Rivers for having brought forward his experiments and results on a most important line of inquiry.

Dr. RIVERS, in reply, said—I am familiar with Dr. Mercier's observation that

some additions are easier than others, but Prof. Kraepelin's addition books are so arranged that this cannot appreciably affect the result. In my own case, the difficult numbers are those which make 13 or 15, but I found that this difference disappeared to a great extent in the course of the investigation. Dr. Wiglesworth made a point with which I must disagree. He said there was nothing in this we did not know before. As a matter of fact, there was something in it which Prof. Kraepelin, with his large experience of mental work, did not know before, and that was that half hour periods of rest are not sufficient, far from sufficient, to get rid of the effects of half hour periods of work. I brought my experiences forward this evening chiefly as an example of work done by these methods. That work, standing alone, is, I acknowledge, of very little use, but taken in conjunction with all the other work which is being done by Professor Kraepelin and by his school it may be of greater value. As regards a physiological explanation of "anregung," I may mention that Kraepelin finds it to be a factor also in muscular work. As regards the question of external temperature, so far as I know, no observations have been made in connection with this special kind of work. I do not know whether Mosso has made such observations. At present it seems to me that what is really the greatest difficulty with regard to these methods is the question of *interest*. These methods of mental work are not interesting, and the interest one can get up in them cannot be very great. Whether one is entitled to draw conclusions from these uninteresting methods of work to work which is interesting is a question of the greatest importance. I hope it may be possible to carry out some kind of experimental investigation of this question of interest.

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*Remarks on the Nursing Staff in Asylums.\** By P. W. MAC-  
DONALD, M.D., Dorset County Asylum.

The subject matter of this paper can hardly fail to be of special interest at the present time, when so much attention is being given to, and so much done for, the nursing staff of every asylum.

It therefore needs no apology from me to ask for your consideration and friendly discussion of this question, for we must all recognise that whatever success may attend our efforts, we are largely indebted to the nursing staff.

That there is a wide divergence of opinion as to how we can best secure and retain the services of an efficient staff I am well aware, and perhaps it was this fact more than any other that induced me to bring the subject before you to-day.

At a meeting of the Association held at Oxford in February, 1894, an able paper was contributed by Dr. Menzies† on "The Future Supply and Status of the Nursing Staff." From time to time opinions are ventilated in the pages of medical journals, and paraphrased in the daily

\* Read at the meeting of the S.W. Division of the Medico-Psychological Association, 14th April, 1896.

† *Journal of Mental Science* for July, 1894.

press. Then there are many able and valuable suggestions within the covers of the Annual Reports of the asylums of this country. And yet again there is the special teaching and training of asylum nurses and attendants, which some would have us believe is destined to be a panacea for all existing and future evils. Wages have advanced, leave of absence has been extended, uniform is universal, palatial halls and separate blocks have been erected, and all with one and the same object: a true desire to remedy defects and improve efficiency.

Notwithstanding, there does not appear to be any material change for the better in the length of service. Comparing the Asylum Reports of last year with those of ten or fifteen years ago, and from the same pens, we have the same hackneyed phrases, expressing regret "that the changes among the staff have been numerous," or "that the higher wages and increased leave of absence," etc., have failed to reduce the too frequent changes.

Now, I am not one of those who believe that changes, even among the senior members of a staff, are always to be regretted. For I have known an old hand do incalculable mischief; yet at the same time the good nurse or attendant is invaluable, and while the work does not suffer because of advanced years they cannot serve too long.

There is a consensus of opinion that the class of the ordinary asylum nurse or attendant is improving, advancing, and this is one of the pivots on which we should concentrate our energies. For though there are exceptions I think it will be admitted that the better grade of nurse or attendant is more likely to become efficient, and with proper treatment more likely to take an intelligent interest in the work.

The question of lady nurses in asylums is one on which I have an open mind, but at the present time there does not appear to be any strong desire among Superintendents to try them. I know that there are lady nurses in some of our public asylums, and I have had the very best accounts of their work, while others have frankly admitted that their experience of lady nurses had not been encouraging. If by lady nurse you mean the woman who thinks more of her personal appearance than the comfort of the patients, who fondly believes that her duties can be discharged while reclining in an easy chair, who thinks she is there to be gazed at and not to work, who hates everything and abuses everybody, then I unhesitatingly say save us from such

nurses. But if you mean the hard-working woman who wishes to earn an honest livelihood, who is neither afraid of, nor shrinks from the unpleasant, and who can accommodate herself to the monotony and irksomeness of asylum life, then by all means let such women take their place on the staff of every asylum.

In considering the question of lady nurses in asylums it is very necessary to remember the real and apparent difference between the spirit animating the hospital probationer as compared to the asylum probationer. When a young woman of 18 or 20 desires to enter an institution to be trained as a general nurse she almost invariably does so because of her inherent fondness or supposed calling for the work ; but I ask you how often do such motives attach to a similar individual applying as a probationer at an institution for the treatment of mental disease ? What is common in the one case is exceptional in the other, and though a matter for regret not altogether one for surprise. No doubt the desire to possess the wherewithal lurks in the background, and one is therefore tempted to say—why not choose the more lucrative post ? The asylum nurse is better paid than the hospital nurse, and there are the additional advantages of more frequent promotion and the prospect of a pension ; but all these advantages do not equalise the difference between the work of applying a poultice, dressing a wound, or taking a temperature, and the ceaseless strain of having charge of a suicidal, dangerous, excited, or troublesome patient. Again, whereas the hospital nurse has few opportunities of acquiring special knowledge in the treatment of mental cases, the asylum nurse can become an efficient sick, as well as mental nurse.

I cannot say that I have found lady nurses of much use in the ordinary wards of a public asylum, but there is a wide field of usefulness for such nurses in the private patient department, and a short experience has fully confirmed my earlier notions that their presence and services are much appreciated by the lady patients. Though capable of taking their part in the routine duties, they are mainly lady companions, and as such I consider them necessary.

There is not the same difficulty with attendants, many of whom are trained disciplined men, though experience has proved that the raw untrained country youth makes the best attendant.

Whatever may be individual opinion regarding the social

status of nurses, I think we are all agreed that the chief of the nursing staff should be a thoroughly trained, educated person. When these ideas and thoughts were run together, now more than twelve months ago, I was strongly in favour of having a lady at the head of the nursing staff, but partly from personal, though mainly from collateral experience, I have to own to a modification in my views. Yet, while admitting that facts and experience have caused me regrets, I am still of opinion that, if you can but meet with the proper person, a lady is to be preferred.

It may be asked—why not a lady? Well, I will give you a few of the reasons. In the first place the monotony of asylum life is not conducive to the maintenance of a high standard of contentment in woman's mind; and, however strong may be the desire to encourage harmonious relations between superior and subordinate officers, I question the ultimate good of social equality, and with whom can the lady chief nurse associate other than the medical officers?

But, apart from the social question, there is a much more important element, viz., the actual duties of the office. Now, on this point, I am fortunate in being able to pick the brains of several valued friends in the specialty. One regrets to have to admit that his lady chief nurses have invariably become little else than lady's companions, and he has been compelled to appoint working head nurses. Another says the cause of failure is, "that there is not a sufficient amount of true nursing duties, *i.e.*, surgical nursing, to engage their attention," and that the drudgery and irksomeness of asylum life chill the best intentions.

So far my observations have been of a general character, and it would serve no useful purpose were I to enumerate the various known causes of the too frequent changes among the staff. Facts are of more practical value than theories, and I am anxious to have your criticism on what has been done at the home of my present labours to grapple with this vexed question.

I have already said that higher wages, etc., have failed to materially raise the standard of contentment or increase the length of service. Nay, I have it from experienced Superintendents, that the spirit of discontent and restlessness is on the increase. What, then, may we infer from such facts and expressions of opinion? Do we not recognise that money, holidays, and shorter hours are not everything to these workers, and that there is a danger of neglect of

what is of the greatest importance—minor domestic comforts. I do not believe that the nurses and attendants in the asylums of this country wish for an “eight hours day,” nor do I believe that there is any general dissatisfaction with the present rate of wages and leave of absence; but I consider the present uncertainty as regards any fixed pension a distinct grievance, as well as a main cause of many leaving the service. Among domestic comforts their bedrooms are in the front rank. These rooms should be pictures of furnished comfort and neatness. The subject of food, especially dinner, is a fruitful source of complaints, and why it should be so I am at a loss to understand. The dinner should be arranged weekly, and every endeavour should be made to introduce variety. The adoption of this system is a powerful check on irregularities and grumbling. I feel constrained to add that the red tape system of fixed allowances is largely concerned in the recurring complaints on this subject.

The privilege of having their annual holiday in two or three parts should not be denied to those who may wish it divided; half days and single day's leave of absence are greatly appreciated; married attendants should be allowed to go home every evening after eight; the day staff should not be required to do duty after the patients' bed-hour; and last, but not least, there should be several sitting, or recreation-rooms, instead of, as is the case in most asylums, but one. This last point is of the greatest importance, for there are grounds for believing that the large common sitting-room is productive of quarrels and discontent. It is not just to ask 40, 30, or even 20 nurses or attendants to share the same room; and it cannot be right to allow them to remain about the wards nor to retire to their bedrooms (except when off duty), no—nor even as was suggested to me by a high authority, to sit in the ward sculleries. I have been greatly impressed by the objections of better class nurses to the general recreation-room, and time tends to strengthen my opinion above stated.

If the medical officers devote many of their spare hours to the training of the staff, I cannot believe that they are called upon to teach either nurse or attendant, who, just as the course of training is over, and the first uniform is growing shabby, resigns, and for no better reason than the love of a change. With a view to checking this, a simple and effectual practice has been adopted at Dorchester. When the usual

period of probation has elapsed, the probationer is informed that before uniform can be granted two conditions must be agreed to. First, the lectures must be attended, and, second, he or she must agree to stay in the service of the asylum for at least one year. I might add that sickness or domestic affliction would excuse the non-fulfilment of the second condition. Though voluntary, the system works admirably and the results are decidedly encouraging. It has checked resignations after six or nine months, and just when nurses and attendants are becoming useful. An experience of three years enables me, with some degree of confidence, to recommend this system to the consideration of brother Superintendents.

On looking through the records of many years, I was impressed by the number of resignations after three to five years' service. I think we generally find that if a nurse or an attendant stays one year, they are likely to stay two or three; and then it frequently happens that for no better reason than the innate love of change they leave, and the same is true at a later period. Remembering the value attached to all kinds of decorative rewards, I conceived the idea of a special recognition—something that they could leave as an heirloom to their children, something that they could show and feel proud of possessing, something descriptive of their work. I suggested to the Committee that they should award medals to all members of the staff for good conduct and long service. The suggestion was favourably received, and they decided to grant three grades of medals: a bronze medal for 5 years' service, a silver for 12, and a gold for 21 years. I believe I am correct in stating that the Dorchester Asylum was the first to adopt such a system.

I may be told that a medal is given in connection with the certificate of proficiency in nursing; but, in the first place the Dorchester medals existed before any other single asylum medal, in the second place they are awarded for good work, good conduct and long service, and in the third place the medals are the absolute property of those to whom they have been awarded. Whereas the so-called Association medal is given for answering a few questions, which is no guarantee of a thorough nurse or attendant. I am in favour of teaching and training the staff, I have already said that such is an integral part of our system, but I wish to sound a note of warning against the prevalent and rather absurd practice of recognising these parchments as proofs of

efficiency. In the course of conversation I have been peculiarly gratified with ready and voluntary expressions of thanks. That these medals will serve as a great and extra inducement to long service, and a fresh and special stimulus to good work, I have not the shadow of a doubt. Though the authorities of the Dorchester Asylum can claim priority in this new departure, the field was not long their own. For, towards the end of last year, the Committee of the Derby County Asylum adopted a similar system of medals with the addition of gold stripes, and Dr. Lindsay writes to me saying that the medals are greatly appreciated.

I do not wish to inflict on you any extended reference to anonymous communications, but I have to ask for your indulgence while I briefly refer to one or two of recent date. Quite recently *The Hospital* opened its columns to the anonymous effusions of a number of discontented asylum nurses; but as I have no experience of the staff being served with uncooked meat, under-boiled potatoes, and raw vegetables, no—nor of studied insults from the medical officers, I would ask any nurse or attendant to name the asylum where they are thus treated, and I will not hesitate to assist in exposing such an iniquitous system of management.

In the *Medical Magazine* for October, 1894, there appeared an anonymous article on the nursing staff in asylums, and were it not that the author signs himself "An Asylum Medical Officer," I would not allude to his curious ramblings. He may be a very wise, learned, and experienced asylum officer, but when the human mind lends itself to the influence of inexperience you naturally expect what you here find, valueless painted notions with artistic friezes of vile abuse. Now with regard to these anonymous mental vapourings and midnight soliloquies, I cannot conceive any course more calculated to retard progress and injure prospects than the publication of ill-natured, ill-advised, and offensive remarks.

In bringing these humble observations to a conclusion, I wish to say that there has been no attempt to cover the whole field, my object rather being to submit for your consideration certain definite facts and methods, which, rightly or wrongly, I believe to be of far-reaching importance as regards the nursing staff; and I further wish to say, that while aiding and assisting the true spirit of scientific research in the study and treatment of mental diseases, we should, at the same time, foster and build up a nursing backbone of loyalty, contentment, and tried experience.

*Discussion on Dr. MacDonald's Paper.*

The CHAIRMAN, in opening the discussion, said they were all very grateful to Dr. MacDonald for putting so tersely before them his observations on this most important subject. Although they might not be able to find such assurances in every case, yet the success which appeared to have attended the Dorsetshire authorities in meeting the requirements of the nursing staff, and in meting out rewards for services rendered, by means of medals, was, he thought, an indication that they were on the right tack. Dr. MacDonald had given them much food for discussion, and he hoped those present would speak their minds, because they did not wish that Dr. MacDonald's experience should be unreasonably weighted with the authority that might seem to attach to it, for so long as nursing staffs were composed of individuals whose human natures were what they were, they must necessarily find a large variation in their results. His experience at Broadmoor was that when a room was specially provided the nurses preferred not to go to it, but had a desire rather to get outside the walls of an evening when opportunities arose. They were certainly not particularly anxious to sit down and talk to each other when they had so very many opportunities in the day time with results of a varying character.

Dr. STEWART was glad to hear the remarks of Dr. MacDonald with reference to lady nurses. He presumed by the term "ladies" he meant "gentlewomen," because every shop girl was a lady now. Gentlewomen in an asylum were not likely to be successful, perhaps for other reasons than those to which Dr. MacDonald had referred. The character of the conversation made the society of the insane particularly repulsive, and it would be very hard for a gentlewoman to get accustomed to the constant filthy expressions which the most refined patients, even in private asylums, sometimes use.

Dr. COBBOLD said he was specially interested in Dr. MacDonald's reference to the failure of the single large recreation-room. He had experienced himself that such was the case in at least three County Asylums with which he had been connected. The nurses in the majority of cases preferred going to their own bedrooms. The introduction of the system of presenting medals struck him as being excellent, and a valuable addition was the bestowal of stripes for long service. He did not know whether there was also an addition to the salary at Dorchester for good conduct, but it had been the rule for many years in the service of the Metropolitan Asylums Board. It was also so at Colney Hatch, though not paid as part of the wages, but merely on the special recommendation of the Medical Superintendent.

Dr. BENHAM said his experience had been somewhat peculiar. When he became Superintendent, now some six years ago, the first duty he had to perform was to discharge every male attendant on the premises. He was pleased to say that he had succeeded at last in getting a staff who were giving satisfaction, and who he believed would promote the discipline on the male side of the house. With regard to the women, situated as he was in the neighbourhood of a large city, he had no doubt experienced much more difficulty in obtaining nurses than was found in country districts, where there was not so much of the modern spirit of unrest. He thought many women brought up in the country were more inclined to settle and accept the irksome duties of asylum nurses than those accustomed to the excitement of town life. Two or three years ago it became a very pressing question with him to increase the efficiency of the female staff. The first step was to get the nurses to go in for the St. John Ambulance Association "first aid." They sent up a large number of candidates from both sides of the house for that examination, and those who passed obtained the badge of the Association, which they proudly wore on their left arms. Then those that had passed, and had seen two years' service in the asylum, were trained for the certificate of the Medico-Psychological Association. He certainly thought that as a result of this the nurses took a more intelligent interest in their work. He was glad to say that there were no nurses in his asylum who could hope to obtain promotion who had not obtained both the badge and certificate, and there were now many of them waiting for promotion who had gained both, so that there

would be no trouble in that direction. With regard to the certificate of the Medico-Psychological Association, the recipients received a gratuity of £2 at the end of each completed year's service from the time the examination was passed, provided good conduct had been maintained in the interval. This continued yearly as each completed year ran its course. Those who passed also received a medal, which on leaving the asylum became their own property if their conduct had been good. The medal was made of silver, and was a handsome ornamental one. Both nurses and attendants at his asylum wore it with pride. With regard to the subject of food a very difficult question arose, and Dr. MacDonald seemed to have been exceptionally fortunate in having had but few complaints under this head. One endeavoured to remedy complaints as much as possible, and was glad to say that when this was done the persons concerned were ready to express their satisfaction and appreciation. As to the big recreation-room, he might say at once that many of the nurses at his asylum did not go to it at all. The attendants received a fair amount of leave—they did not go out every night in the week, neither did he find, especially among women, that the desire was general to do so—but they had the privilege in the summer months of going out into some parts of the asylum grounds. For some years past this privilege had been granted under sufficient safeguards, and there had been no reason on his part to regret it. He thanked Dr. MacDonald, and fully concurred with the opinions expressed in his able paper.

Dr. BOWER said he joined in the expression of gratitude to Dr. MacDonald. One matter he had had some experience in was with regard to ladies in asylums. While he was at Edinburgh they introduced lady companions among the patients. That was in a private asylum, and the remarks of Dr. Stewart, which he was rather sorry to hear, bore on private as well as on public asylums. With regard to the objectionable language, he thought there was another side to be considered. The knowledge of ladies being present in the sitting-rooms with lady patients was a very great check on the use of objectionable language. He found during the time he was at Edinburgh that ladies had a refining influence on the patients and attendants. They found that they were able to trust the lady nurses, better than the ordinary attendants, to appreciate the necessity for constant supervision in certain suicidal and dangerous cases. He helped to introduce the system there, and certainly had no reason to regret it. He did not think that the lady nurses would do in substitution for the ordinary attendant. He quite agreed with Dr. MacDonald in that, but as an addition he was quite sure they worked a great improvement in the treatment of patients. He was especially interested in hearing of the various inducements to keep attendants. He had usually found great difficulty in keeping on attendants after they had served about a couple of years.

The CHAIRMAN remarked incidentally that the Treasury had been good enough to sanction an allowance of a month's pay to female attendants at marriage, provided they had been on the staff for six years. It was rather putting a premium upon marriage, but he thought it was a very suitable recognition of long service. This happened just before he left Broadmoor, and he did not know whether anything had been done in the matter with regard to County Asylums.

Dr. COBBOLD said there were always gratuities under the Metropolitan Asylums Board.

Dr. WADE remarked that, according to the Government auditor, no gratuity could be allowed after service ceased.

Dr. MACDONALD said that, as usually happened at such meetings, the very people one expected to open their minds refrained from doing so. (Laughter.) He thought he might conclude that everyone who had spoken had agreed with him in condemning the large recreation-room. His remedy was that two or three should be provided, where the attendants could sit and meet together in small groups as they liked. He disapproved of medals which had been earned being given up on leaving the asylum. The remarks which had fallen from Dr. Bower with regard to lady nurses he was very glad to hear, because they practically confirmed his own experience.

*The Special Reports and Certificates required by Section 38 of the Lunacy Act of 1890, and Section 7 of the Act of 1891.* By R. S. STEWART, M.D., D.P.H.Camb., Deputy Medical Superintendent, Glamorgan County Asylum, Bridgend.

“We very much doubt whether this table will ever show much diminution on these numbers, for as time goes on the work of special certification will become more difficult and intricate.” So writes in the January number of the *Journal of Mental Science* the reviewer of the last Report of the Commissioners in Lunacy for England and Wales regarding the Table (Appendix B) which gives the number of readmissions on fresh reception orders rendered necessary by the previous order having expired under the Lunacy Act, 1890, sec. 38.

With the two opinions here expressed we are unable to agree. With regard to the first, what do the Commissioners Reports since the Act came into operation show? The numbers of such readmissions for the five years 1891-94 are as follows:—

Year.	Number.	Per cent. of	
		Total	Admissions.
1891	344	1.86	
1892	182	.95	
1893	119	.59	
1894	99	.51	

Readmissions under this heading are therefore steadily diminishing, and there is no reason why this should not continue.

In the second place, the work of special certification, *with a properly devised system*, need not, as time goes on, become more difficult and intricate. That some such system is required is apparent enough. Of the sixty-eight English County and Borough Asylums, three only—Berkshire, Colney Hatch, and Claybury—have so far been successful in not allowing the reception order of one single patient to expire by overlooking the special report and certificate required by section 38, or, at all events, in avoiding a readmission due to such an oversight.

The amount of trouble, worry, and expense connected in these cases with the formal discharge, the obtaining of fresh certificates and reception orders, and the subsequent formal admission is by no means inconsiderable, and on these and

No.	Name.	Date of Recept- tion Order.	Date of Admission.	Result.	DATE OF LAST REPORT.									
					1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
4185	J. H.	Aug. 30, 1890	Aug. 30, 1890	—	Aug. 9	—	—	July 30	—	—	—	—	—	—
4189	S. P.	“ 30, 1890	Sept. 1, 1890	—	“ 9	9	—	“ 30	—	—	—	—	—	—
5062	S. T.	“ 30, 1893	Aug. 31, 1893	Died	—	—	—	“ 30	—	—	—	—	—	—
5733	W. R. E.	“ 30, 1893	Nov. 5, 1895	—	—	—	—	—	—	Aug. 1	—	—	—	—

other grounds it is desirable that such readmissions should be at the very least reduced to the minimum.

To be a success it is necessary that any system that is adopted should be simple in the extreme, and this was the object kept in view in devising that which is in use in this asylum. For the purposes of this section the only really important point is the date of the reception order, for it is this alone which determines the date upon which the special report and certificate fall due, and the earliest possible date is the one which proves the simplest in working. In a book called the *Register of Renewal Reports*, there is a separate folio for each day of the year, and each admission as it occurs is entered under its appropriate date. The accompanying is a sample of such a folio.

The right hand page is devoted to the date of the last report, and on each occasion of entering this, the years upon which no report falls due are lined out, so that in the current year one can at a glance see which reports are then due. The scheduled cases whose reception orders are dated on or prior to 1st February, 1890, are kept separate, and entered as falling due for report on 1st April.

The system of collecting the cases into weekly groups was tried, but was found to become increasingly cumbrous and complicated as time went on, and it was given up in favour of the

daily method. Discharges and deaths are recorded at the same time as the entries are made in the statutory register, and a line drawn through the columns on the right hand page to close the case.

With some such system as this, and with ordinary care, there is no reasonable excuse for the overlooking of a report when it falls due ; and it has this further distinct advantage that it retains its simplicity all down the years.

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*Atypical and Unusual Brain-Forms, especially in Relation to Mental Status : A Study on Brain-Surface Morphology.*  
By W. JULIUS MICKLE, M.D., F.R.C.P. (London), President-Elect, Medico-Psychological Association.

#### CHAPTER I.

*General Considerations—Normal Standards of External Brain Architecture—New Details of Unusual Forms of Convolutions and Furrows—Many Deviations from Type accepted from Several Observers—Chief Deviations from Usual Form in Brains examined by the Writer, and the lines on which they occur ; their significance and appraisement from a general point of view.*

In an Address\* in the Section of Psychology at the Annual Meeting of the British Medical Association, London, 1895, I touched upon some of the results of an analysis of many necropsies I had made, with regard to abnormal forms and arrangements of brain convolutions, and mentioned the dissatisfaction one had felt with some of the accepted standards of convolutional form. With regard to unsatisfactory standards of normal brain-form, it was stated in the Address that “we may take it for granted, and need not tarry to prove, that a different normal standard of brain-form obtains in different stages of individual life, in different races of mankind, and, as a logical inference, must obtain also in different ages of the world and epochs of time ; for what practically concerns us at the moment is the normal set of standards for modern British brains. The standards of the normal, hitherto chiefly in use, and with which I began, were unsatisfactory, defective, incomplete, insufficient in range, and even misleading. For their unsatisfactoriness

\* “ Presidential Address,” delivered July 31, 1895. Published, *British Medical Journal*, Sept. 28, 1895.

there are several reasons. One is that some of them have been diagrammatic or schematic, thus unduly accentuating some features and minimising or omitting others. Another is that the brains from which certain figures and descriptions are drawn have been taken from dissecting-room subjects, or from patients—most of them ‘incapables’ of various kinds, dying in rate-supported or State-supported institutions—of whose life-history little or nothing is known in many instances; who often are failures in life—waifs and strays—broken fragments of the wreckage of civilisation, the indication of degeneracy and breakdown. And such failures, waifs and wreckage are they very often—most often, indeed—because of their mental defect or perverted aberrant type of mind, which not infrequently has as its accompaniment, sometimes pathological brain change; but sometimes also, or solely, has an abnormal brain development and aberrant gyral conformation. Indeed, knew we their ancestral and life-history fully, we would search such subjects for some of the most interesting forms of convolutional deviation from type. And still more would this be the case, if, especially in the past and in some countries, dissecting-room subjects have been largely recruited from the criminals dying in prisons, and the mentally decayed and defective dying in asylums. Therefore it is not surprising to find that sometimes the brains taken from the sources previously referred to, and published as typical, are what I do not hesitate to declare and describe as being brains of deranged or of defective development, and utterly misleading if taken as normal.”

It was also claimed that their full significance must be assigned to other coexisting conditions, and these were set forth in the Address.\* Yet, giving due place to the considerations mentioned there, I concluded that there still remains over a body of evidence as to the existence of particular conditions and details of brain architecture which are marks or indications of low type of brain and mental organisation; of defective and deviating types of brain development, correspondent to defective aberrant types of mental action and of outward conduct, and that, within a certain definite range, there is an agreement between brain conformation and clinical psychiatry. These conclusions were drawn from my examination of a very large number of brains.

\* *Loc. cit.*, p. 757.

In the Address were also briefly considered some more or less new points of inferiority or deviation of type—of defective or aberrant development—of gyres and fissures, which I have observed, which were new at the very least in the sense that they were not known to me as being noted by others. On search it was found that certain of these points had received brief mention, or had place in some detailed descriptions or figures of individual brains, but, like other unheeded details in these, had not been the subject of special attention. Only a very brief summary of these special points learned from my observations, and already published, will be given here and first, and then the chief deviations in type of convolutional architecture in the brains I have examined will be systematically considered, those which have been accepted from other observers being (in that part of this article) taken conjointly with those which I have brought forward.

#### NEW DETAILS OBSERVED BY PRESENT WRITER.

The points learned from my observations, and stated here in very brief summary, are as follows:—

*The more general departures from usual or typical form in any of the directions mentioned on a later page—superiority—irregularity—inferiority.*

(a.) I have found anomalies of the gyral architecture more frequent in the right than in the left cerebral hemisphere, even after making allowance for the fact that, at least according to my observations, the normal standards of right and of left cerebral hemispheres differ somewhat between themselves in man.

(b.) Another of the points of more general kind is expressed in irregularity of gyres, and much irregular division and subdivision of them by the unusual aberrant course, depth, length, forking, or reduplication of ordinary sulci, or the existence of unusual ones. It is essentially dissimilar, not only on the one hand from an inferior type marked by few and simple gyri and sulci, but also, on the other, from a normal type of highly-endowed brain, rich in folds and anfractuosities.

(c.) An islet of cerebral cortex is occasionally formed by unusual aberrant forking of a principal sulcus, or a fissure, the spurs fully reuniting after enclosing an islet of cortex; as, for example, in the case of the central fissure, or the parallel sulcus, or interparietal sulcus.

*The more local departures from usual form.*

These will be described more fully later on, together with other atypical conformations of the same parts.

(d.) The tendency to an irregular circle of furrows encircling parts of the temporal parietal and limbic lobes or gyres from the temporal tip back again to the same, and consisting chiefly of the parallel, interparietal, parieto-occipital, "stem," and collateral furrows.

(e.) The next condition is the formation of a parietal operculum overhanging part of the occipital lobe; the reverse of the simian occipital operculum, and for this reason I termed it a *reversed occipital operculum*. It is a parietal operculum, directed backwards; or opercular state of the parietal, and more of the inferior than superior parietal lobule.

(f.) The formation of what I have termed a *præcuneolus*, or an *anterior cuneolus*. It consists in the superficial insulation or peninsuluation, on the mesial surface, of a portion of the quadrate lobule—usually its upper posterior area—triangular or squarish in shape, or its posterior strip; either by a forking or reduplication of internal parieto-occipital fissure, or, occasionally, by a sulcus cutting through from the upper to the mesial hemispherical surface.

This condition has important relations to the annectant gyres, and the island or peninsula, as a rule, is apparently formed by a depressed, inbending, mesially-directed substructure, or continuation fold, of the first external parieto-occipital annectant gyre.

(g.) The formation of what I termed a *cuneolus* or *posterior cuneolus*. It consists of an unusual form of the superior internal parieto-occipital annectant gyrus, and of the cleft bordering it posteriorly; which last now drives deeply into the cuneus, ploughing off the upper anterior triangular area of its surface. In some examples, indeed, there is what practically amounts to a forking of the internal parieto-occipital fissure.

And, again, an upper and posterior and irregularly triangular part of the cuneus may be cut off by a sulcus from above; in some cases, indeed, incising the cuneus to the calcarine fissure, or almost so.

The new applications of the terms mentioned above are made merely for brevity and convenience, and save much repetition of description.

(h.) Unusual conformation of the præcuneus other than

that already mentioned under “(f).” Extraordinary irregularity may characterise the quadrate’s sulci, which, as well as the subfrontal fissure anterior thereto, may take on a most bizarre arrangement.

(i.) The next condition to mention is the close proximity, in their somewhat parallel course, of the transverse occipital sulcus to the external limb of the parieto-occipital fissure, so that these are only separated from each other by a narrow ridge or very slender fold.

(j.) Next, is an unusual or an abnormal variation of the normal issue of the deep temporo-parietal annectant gyri and deep temporal sulcus from the first temporal gyre; so that the external surface-substance of the latter, or a large portion of it, turns from forming part of the lateral aspect of the temporal lobe, twists sharply, plunges into, and entirely disappears in, the Sylvian fissure; and therewith the parallel sulcus apparently becomes continuous with the deep temporal or other sulcus, and loses its way into the Sylvian gutter. In such case a variety of unusual conditions may concern the isolated representative of the true posterior continuation of the parallel sulcus, which restarts immediately behind an interrupting, raised, bridging, anastomotic, gyral fold.

(k.) The first temporal gyrus may be partly divided by fissurets running upward and backward, the first temporal sulcus being in segments so disposed, or branching in that direction.

Much more often, the second temporal gyrus is partly divided by fissurets directed downward and backward, such practically representing the second temporal sulcus, or part of it, in a sectional form.

Thus the sections of the latter gyrus and sulcus are in a direction at about a right angle to those of the former.

(l.) Extremely irregular divisions of the lower parietal tier may occur, it being much and irregularly incised by bi- and tri-furcation, or by unusual branching, or by unusual and prolonged extension of sulci, of the first temporal sulcus especially; also by irregularity and zigzag state of inter-parietal sulcus, or by a far descending, and perhaps forking, external continuation of parieto-occipital fissure; or by an unusual form of sulcus intermedius (of Jensen).

(m.) Similarly, the upper parietal tier may be affected; and one, two, three, or four oblique sulci may partly divide the superior parietal lobule into several sub-gyres. These

furrows may run obliquely backward and inward, and some, over the edge to the mesial surface of the hemisphere.

(n.) Next, are furrows from the Sylvian fissure ploughed vertically part (occasionally two-fifths) of the way up the middle of the external surface of one or both of the central gyres. In some examples, these may denote an unusual extent, and somewhat aberrant or less favourite position, or duplication, of the incisions of the frontal and parietal opercula from the Sylvian. It is less likely that they ever represent duplication of postcentral or precentral sulcus elements.

(o.) Certain states of frontal sulci, especially as concerns the third frontal gyre. These, with others relating to the same parts, will be stated in detail in a later chapter.

(p.) The frontal convolutions may be, more than usually, ploughed or subdivided by short fissurets directed forward, upward and inward. The secondary gyres thus formed have the same upward, forward and inward direction on the supero-lateral frontal surface as have their bounding and separating sulci. This gives an appearance of deviant line of direction and oblique thrust to the frontal convolutions, as if they were twisted in their forward course so as to trend forward, upward, and inward, in a diagonal direction, as if the second and third frontal gyres sought the frontal tip, and the first gyre the mesial surface.

#### *Chief Deviations from form described by a number of observers.*

Other observers have found a number of deviations occurring in brains, as, for example, in those of certain kinds of criminals, those of some persons of weak intellect, or insane. Of these deviations, there is reason to accept some as being significant, to reject others, and to accept still others in a partial manner only, only partially accepting these inasmuch as they are valid only when in conjunction with other specific conditions, disjoined from which they cease to have the same significance; in some cases, indeed, bear a very different meaning. *Like words in a sentence, their meaning varies with their context.* To this variation of meaning with the context I shall frequently recur in the following pages, for it is a very simple and useful simile to impress on the mind the fact to which it refers.

The above specified details, as well as some but little noticed hitherto, together with conditions previously stated in full by others, and accepted as departures from usual

form or from type, will presently be described conjointly, *as far as they occurred in brains examined by the writer*. But the following account is not exhaustive; a number of rare, or at least infrequent, departures from usual form, or morphological aberrations or peculiarities, will be omitted, the object being to include here only the more usual and more practically useful.

Deviations from the usual forms and arrangements of convolutions of the brain present conditions possessing very different and sometimes even contrary significance. Gyres and fissures deviate from the usual conformation in ways essentially distinct, independent in origin, boldly contrasting in interpretation. They may deviate from the ordinary average state, in the direction of superiority; or in that of aberrant irregularity or bizarrie; or in that of inferiority by defect or by retrogression. The first shows active development and high evolutionary grade; the second shows formative activity, and perhaps over-activity, but lower in kind, ill-directed, aberrant; the third indicates defect of development, or else evolutionary reversion.

Therefore, superiority, irregularity, and inferiority of gyral and fissural states are the three great lines of departure from the usual average and normal. Of these the first does not require division, so far as our present purpose is concerned; the second may conveniently be conjoined with the third as being also essentially one kind of inferiority, and, as far as concerns our immediate purpose, may well be merged in the inferior. And, so, deviations from the usual form of gyres and fissures may be considered in their several kinds, according as they are due to one, or other, or several of the following factors, namely:—

1. Development defective, weak, slow, imperfect.
2. Development deranged, perhaps active, but giving rise to irregular and strange forms.
3. Development arrested more or less, with persistence of foetal character in place of advance to adult form.
4. Reversion towards brain-type of lower races of mankind.
5. Reversion towards types of brains of lower animals, especially apes.
6. Developmental superiority.

In what immediately follows, on the subject of deviation of brain-gyres and furrows from usual type, an endeavour will be made to estimate the meaning and significance of

These departures from rule. When they constitute deviations which merely indicate evolutionary advance and a departure from form necessitated by the higher grade, position, and functional energy of the brain concerned, recognition of their true character is as much required as in the case of the others which mark morbid aberrancy or defect; although it is these latter kinds to which attention must be restricted in one of the future articles of the present series. For it is only abnormal defects or aberrations which can take part in the constitution of a standard or criterion of abnormal surface-conformation of the brain, amounting to a stigma, or sign-group, of hereditary mental degeneracy; those, and those only, being relevant to the subject of the future article just mentioned.

## CHAPTER II.

In this and the succeeding chapters will be included:—

1. AN ACCOUNT OF THE CHIEF DEVIATIONS FROM TYPE AND DEFECTS IN CONFORMATION OF GYRES AND FISSURES IN THE BRAINS FORMING THE BASIS OF THESE ARTICLES.
2. REMARKS UPON, AND ESTIMATION OF, THE SAME.

Under each heading are taken the chief deviations of form and of relation found by the writer in the external cortical architecture of a series of brains. Under each, are taken together both those which were previously stated by other observers, and also those brought forward by the writer, and briefly stated in summary above. These chief deviations, with remarks upon and appraisement of each, will be divided as follows:—

A. First, will be concisely stated a few general conditions, *i.e.*, conditions which may exist simultaneously in various and separate parts of the brain.

B. Next, the more definitely local or individualised states will be described and commented upon at some length, as they affect individual lobes, gyres, and furrows.

### A.

#### MORE OR LESS EXTENSIVE OR GENERAL CONDITIONS.

The greater frequency of cortical architectural deviation from normal form in the *right cerebral hemisphere* than in the left, has already been mentioned.

Nor need one repeat what has been stated above, under

the heading of newer details, on the *irregularity* of gyres, and their irregular subdivision produced by unusual states of furrows.

And I have sufficiently described the formation of *islets of cortex* by division and reunion of the main trunk of a *principal furrow*. Such an islet of cortex rising in the channel of a principal furrow, and produced, as it were, by a forking and prompt reunion of the main trunk of the sulcus, is indicative of *aberrant* formative activity.

Departure from the standard of *relative size of the several lobes* of the cerebrum is distinctly observable in some cases.

*Microgyria* is sometimes found with defective brain-type.

*Large islands of cortex* may be quasi-insulated by communications of sulci, chiefly of primary ones, the shores of the irregular islands being formed by conjunction of several different sulci, of which some may be supernumerary furrows, or unusually developed secondary sulci.

#### *Unusual fissure-forms.*

Unusual fissural states may be produced by irregular course and extension of known sulci, as, for example, furrows which run downward and backward upon or near the temporal surface, or pass therefrom to the inferior cerebral surface, perhaps ploughing it up almost to the hippocampal or calcarine fissures.

Unusual furrows may also be made by an abnormal duplication of ordinary furrows.

Constituted in either way—and in the former, perhaps, not very appropriately named here—these indicate a perversion in developmental activity; in the former case showing defect of annectant gyral folds, together with luxuriance of branchings and undue extension of anfractuosities; and in the latter case, namely, that of duplication of ordinary furrows, showing perverted activity of formative action—action excessive in degree, lower in grade.

#### *A fissure-girdle or furrow-girdle.*

I have sometimes found an irregular, complete or almost complete circle of fissures and sulci engirdling a large part of the cerebral hemisphere, from temporo-spheroidal tip, back again to the same point, or nearly so. It is formed by the conjunctive communication of a number of furrows; namely, the parallel, the interparietal (or not), the superior

and mesial limbs of the parieto-occipital, the conjoint stem, the lingual (or not), the collateral fissure, and the temporal incision. This subject will be mentioned again when speaking of the collateral fissure.

This fissure-girdle shows inferiority of development, inasmuch as it indicates a *relative* defect of the annectant gyres in the course of the girdle, which normally should interrupt and separate its constituents. It also shows undue extension of sulci, and unusual length of the temporal incision (of Schwalbe).

Passing from these conditions, which have a more or less extensive range, we now come to consider the individual lobes and gyres and furrows.

Under each heading, the chief atypic states observed in the brains examined by me will be briefly reported, and some commentary and estimate concerning those states will follow. Successive chapters will be devoted to the mesial surface; the occipital lobe; temporal lobe; parietal lobe; central gyres and fissure; and frontal lobe.

### CHAPTER III.\*

#### B.

##### UNUSUAL OR ABERRANT MORPHOLOGICAL CONDITIONS OF INDIVIDUAL LOBES, GYRES, AND FURROWS.

###### MESIAL SURFACE.

###### (a.) *Subfrontal fissure (calloso-marginal fissure).*

This may be irregular, and may seem to fork posteriorly. It may end with an upturn further forward than usual, and even in front of the central fissure; or may end with an upturn further back than usual and well behind the post-central sulcus; this latter is perhaps more indicative of hereditary defect. The fissure may be in two chief sections, the hinder of which is considerably the lower in the anterior part of its course. It may appear more or less practically doubled. In one such case, the lower furrow of the two ended, posteriorly, above the middle of the corpus callosum, considerably short of the usual situation of the up curve. The upper furrow of the two threw out spurs, continued much further back than the other, formed a sort of abortive up curve; then shallowly joined the sub-parietal fissure,

\* This chapter and the next one are not yet in complete form at the time required for press.

and, conjointly with the latter, blended with a bold furrow running vertically to the upper edge. Occasionally a variety of the double sub-frontal fissure appearance arises from an unusually long and deep intra-limbic sulcus. The sub-frontal fissure may run low down and not reach the upper hemispherical surface by its upturn, but a sulcus, one-third of an inch behind and parallel with this, does reach the upper surface. The condition may be partly due to a deep annexant attaining the surface. Or the posterior upturn of the sub-frontal may seem to fork, one spur running to each side of the upper end of the Rolandic fissure.

With one (right) sub-frontal fissure upcurve situate far back, the other (left) may be in the usual situation. Posteriorly, it may have two or three upcurves, *e.g.*, one joining with, or partly forming, the pre-oval sulcus, one opposite to the central fissure, and one behind the post-central sulcus. Or it may throw three nearly vertical branches to the upper edge of the hemisphere, the most posterior of which springs from a stellate subparietal approaching the corpus callosum.

The sub-frontal may be connected with a bold sub-parietal fissure, nearly insulating the quadrate lobule from the gyrus *fornicatus*, receiving the transverse parietal sulcus, and running into, or nearing, the sinus of the corpus callosum.

The posterior upturn of the sub-frontal fissure may be short, the posterior portion of the horizontal part of the fissure being oblique and not far from the upper border. In such case the upturn may send a spur into the quadrate ; in such case, also, the posterior arc of the fissure may be very arcuate ; contrary to what one would expect.

(b.) The *fornicatus* may be smaller than usual or irregular in shape ; and either it or the *marginalis* surface (Fr. 1) may be more or less divided into two tiers. The *fornicatus*, however, has a much less relative size in primates than in lower mammals.

(c.) The *pre-oval sulcus* (paracentral) has been stated to be convex backwards. But sometimes there is only a slight or indistinct limiting sulcus ; and when it is present in well-defined form I have often found it somewhat concave in posterior aspect (instead of convex), or practically neutral in that respect, or presenting a double curve like a long *f*, or the same reversed. In foetal brains it is usually set with the concavity backwards.

COMMENTARY.—Brief commentary on the above states of

mesial surface observed in brains will especially concern the sub-frontal fissure.

Sometimes one finds an appearance as of two or even three quasi-sub-frontal fissures, the one or two extra furrows seeming like abortive sub-frontal fissures. By this means more or less of the part of the mesial aspect of the anterior half of the cerebral hemisphere, situate between the gyrus *fornicatus* and the upper hemispherical border, is divided with greater or less completeness into two or even three tiers of gyri.

This we may take as partial duplication or triplication of the sub-frontal fissure (or "vegetative repetitions" in some?), and indicating aberrant formative activity. Or, in some cases, they might plausibly be taken otherwise, and as an abnormal persistence, in the adult, of a foetal character, which is sometimes shown by brains in the seventh and eighth months, and the dawn of which may be observed in some brains of earlier months.

But, probably, we have in the appearance as of two or more (partial) sub-frontal fissures in the adult brain, a condition the status of which varies, and is often to be appraised by the context of conditions amidst which it is found. For, as already said, a morphological brain-condition often varies in its meaning with the various other conditions with which it is associated; much as the words in a sentence may vary in significance with *their* context. In examples of the formation in question, if the other accompanying conditions are aberrant, defective, or reverting, then may this formation also be taken as of the same nature. On the contrary, if the accompanying conditions evince a normal or a high brain type, this formation may perhaps be deemed to manifest the same in its gyral and fissural wealth and luxuriance.

But when—other things, hereabouts, normal—the anterior half of the mesial surface above the *fornicatus* is shallowly divided into two tiers by a series of short fragmentary sulci, arranged sagittally in line one after the other, and perhaps connected by slight grooves, I take it that, so far as it goes, this indicates superiority of brain instead of the reverse.

Deviations of the sub-frontal fissure from usual form are apt to be accompanied with aberrant appearances in other parts of the mesial aspect of the brain. For example, with duplication, real or simulated, of the anterior reaches of the fissure, together with a broken and very irregular course of its posterior portion, there is a tendency, in some cases, for

the sub-parietal fissure to be very irregular, beset with spurs, and oblique or somewhat vertical; and also for the calcarine to be irregular, deviant in form and relations, and interrupted behind by a superficial bridging gyre.

Although it is not interlobar, but is an intragyral sulcus, the chief (first, or upper) super-orbital incision (of Broca) (sulcus rostralis), by its course and connections, has seemed to me as belonging to the sub-frontal fissure system. Its direction and sweeping curve, its close resemblance to the anterior arc of the sub-frontal fissure in many of the cases in which the latter is interrupted, so that the several arcs thereof are distinct; its frequent inverse relation of size and development with the anterior arc, its occasional entry into the latter, its variation with the superficial or deep position of the pre-limbic annectant gyre, its length and constancy in man, and its presence in all primates—seem, collectively, to speak of it as a part, or adjunct, of the sub-frontal fissure group.

It is often to be seen in foetal brains at various ages. When this is the case in some examples figured it is found to be labelled as an early or representative element of the calloso-marginal fissure. Or, on the other hand, it has been held and depicted as continuing into the larger metopic sulcus, or as forming an element in a sulcus of the comparatively early foetus to which the same name is applied, and which may not be accompanied by any sulci near it on the mesial aspect. But I think this is incorrect, and that in the examples last referred to there is before us an early form of an element of the sub-frontal fissure (calloso-marginal) itself (or of an arcuate precursor in the earliest examples), and that in the interpretation of appearances omission has been made to give due allowance for the rapid growth and shifting relations of neighbouring mensial portions of the frontal lobe.

The sub-frontal fissure, proper, was found:—Not interrupted, by Sernow in  $71\frac{1}{2}$  per cent., by Giacomini in  $67\frac{1}{2}$  per cent.; with one interruption, by Sernow in  $24\frac{1}{2}$  per cent., by Giacomini in 28 per cent.; with two interruptions, by Sernow in 4 per cent., by Giacomini in  $4\frac{1}{2}$  per cent.

Sernow found the fissure single in  $44\frac{1}{2}$  per cent., the arcuate portion more or less doubled in  $55\frac{1}{2}$  per cent. As variants of the former were one or two interruptions of the single fissure. As deviations from the complete double arch of the latter were shortness of one arch, division of

arches into sections, presence or absence of union of one or of both arches with the vertical piece.

Eberstaller observed the fissure single in 68 *per cent.*, doubled in 30 *per cent.*, scattered in two *per cent.*; and the simple single form decidedly more frequent on the right side, the double form more frequent on the left. There does not seem to be adequate basis for making the schematic type of the fissure to be of double form.

Although the fissure is long and single in some cases, the tendency is to send off superficial or deep annectant gyres mostly directed upward and backward, and flying off, as if centrifugally, from the *fornicatus* and *corpus callosum* region, and toward the hemispherical border--at all events, until the posterior arc of the fissure and the resistance of the oval lobule are reached. This form is found in a number of foetuses in the sixth, seventh, and eighth months, and its persistence in the adult, often at least, marks undue retention of a foetal character.

It is variable in time of first appearance during foetal development, and in the older foetuses may be stated to vary in form, direction, and division much as in later life.

The parts above-described have been much confused. In some figures of brains the super-orbital elements and those of the sub-frontal fissure, proper, are arbitrarily, self-inconsistently, and sometimes erroneously, named or lettered. The same remark applies to the delineation of other furrow-elements on the anterior half of the mesial aspect of the cerebrum, as, *e.g.*, those which divide that surface more or less into superimposed tiers, in some brains. It necessarily follows that this gives rise to divergent and arbitrary identifications of the gyral elements, the interpretation of *their* extent and limits being guided by those of the furrows dividing and bounding them. Therefore, undue curtailment or extension of *fornicatus* and, inversely, of marginal and super-orbital elements, is sometimes depicted.

The annectant gyres crossing the sub-frontal fissure play an important part. Running out of the *gyrus fornicatus*, they may become superficial and completely divide the fissure into several separate arcs, chiefly crossing the anterior arc; or between the anterior and middle arc; or between the middle and posterior arc, and hereabouts are sometimes two; or crossing in the course of the posterior piece, and shallowing the junction between the main horizontal stem of the fissure and its posterior vertical upturn. But in

some cases interdigitating gyrels\* cover the walls of the fissure pretty well all along the posterior half of its horizontal reach. The posterior of the two incisions bounding one of these usually deep, occasionally superficial, annectant gyrels may take part in the formation of the pre-oval sulcus bounding the *oval lobule* in front, a sulcus often ill-formed and very variable in shape, position, arrangement of component parts, and constitution ; nearly always present, in some degree, in man and most apes, and absent only in the lowest of the primates. It is sometimes boldly marked in the human foetus. We may, therefore, briefly consider this lobule, called *paracentral* by Betz ; together with its limiting sulcus, *solco inflesso* of Lussana, *pre-oval sulcus* of Broca, *paracentral* of Schwalbe, *inflected* of Wilder.

On the upper hemispherical edge, and adjoining mesial surface, shortly in front of the line of the superior pre-central sulcus, is often a depressed little pit or fossette, usually more or less continued, below, on the mesial aspect, in furrow form. This is a frequent and important element of the pre-oval furrow. But there are others. Where a (usually deep) annectant gyre crosses from the gyrus *fornicatus* to the posterior part of mesial aspect of first frontal convolution, the furrow indicating the posterior limit of the upper insertion of this superficial or deep annectant gyre on the frontal lobe, serves to form part of the pre-oval sulcus. A spur from the sub-frontal fissure also frequently takes part in the formation of the pre-oval sulcus, communicating often with the other elements just mentioned. In some cases the sulcus is formed almost completely from the upper surface ; in others partly thence and partly from the sub-frontal region below ; in others from below.

The first of the above-mentioned elements is named “*sulcus præcentralis medialis*” by Eberstaller, who argues that what has just been mentioned as a spur from the sub-frontal does not form part of the anterior limiting sulcus, but is in front of the true *sulcus præcentralis medialis*, and separated from it by the mesial root of the first frontal gyre. Nevertheless, he admits that in 55 per cent. they *do* communicate at a deep annectant gyre, although the two pieces differ in depth. But this so-called *sulcus præcentralis medialis* is not an element of the precentral sulcus system ;

\* If I may coin and use *gyrel* as a diminutive of *gyre*.

it usually lies in front of the plane of the latter; it does not mark the anterior boundary of the anterior central gyre so far as the surface tells; it trenches on and cuts off a small posterior part of inner aspect of root of first frontal gyre. By Flesch and Familiant it was taken to represent the carnivore sulcus cruciatus, a homology claimed by Betz for the sulcus spoken of as limiting the oval lobule in front.

Moreover, the "paracentral" lobule, often so-called, is not paracentral. The posterior central gyrus is a constituent of it, at most, to a slight extent only, notwithstanding that the gyre contributes a band of grey and white matter which forms part of the whole length of the posterior bank of the lobule, over against the reach of the upcurve of sub-frontal. And the anterior central gyrus does not fully form it, the back end or root or roots of the first frontal convolution, at least often, contributing somewhat to its formation. Thus it is not co-terminous and co-extensive with the mesial ends of the two central gyres. From a truly "paracentral" lobule it differs by processes both of exclusion and of inclusion. Oval lobule is a better name, as given to it by Pozzi and Broca.

The pre-oval furrow, often curving, usually diagonal, occasionally vertical, is often short or imperfectly developed.

When a boldly defined spur from the subfrontal is borne towards or to the hemispherical border, on the posterior flank of a superficial annectant gyre, and thus appears as preoval sulcus, the oval lobule may also be partly or entirely divided, either, as in one of the brains before me, by a curved intra-oval incision or fossette nearly joining an accessory praecentral element on the mesial aspect, namely a spur there, from a tri-radiate sulcus on upper surface; or, as in another brain, by an irregular precentral sulcus element, and by a spur from sub-frontal, like a premature abortive upturn, slant-wise forward. To term such as these "pre-oval sulcus" seems to be incorrect. Yet, in a case very similar to the former, an upward spur of the intra-oval incision has been depicted and named as pre-oval sulcus, erroneously I think.

Other things equal, the following would denote superiority:—

A well-marked pre-oval sulcus and delimited oval lobule.

A single, or but once-divided, sub-frontal fissure, well provided with deep or partly superficial annectant gyrels.

A moderate and interrupted sub-division of mesial surface

of first frontal gyre, by a linear series of furrows, sagittally thus dividing that surface into two longitudinal superimposed tiers; and with numerous vertical and oblique radiating furrows, as if seeking the upper hemispherical edge. The furrow-group dividing that surface longitudinally I would name the mesial frontal intra-gyral sulcus. According to the concise but full abstract by Stieda, from the Russian work, Sernow does not mention it, merely stating that on the gyre are many secondary furrows, mostly radiating from near the arcuate portion of the callosomarginalis. And Eberstaller says it is only seldom there is any antero-posterior division of the medial aspect of the first frontal convolution. I have found it fairly often, however, and arranged as above described. I see it is figured by Brissaud.

Other things equal, the contrary conditions would denote relative inferiority.

Another mark of superiority, *cet. par.*, is a well-developed super-orbital sulcus, with two accessory super-orbital incisions.

Conversely, small size, imperfect development, and fewness of super-orbital furrows tell for inferiority (*cet. par.*).

The upper and chief so-called super-orbital sulcus exists in all primates, the first so-called accessory one in man and anthropoids, the second in man only, and inconstantly.

Failure of the posterior upturn of the sub-frontal fissure to reach the upper hemispherical edge denotes aberrancy and defect of conformation, as in lunatic or in microcephale. Reduction of the normally sharp posterior upcurve to a slight gradual flexure of the general line of the horizontal portion of the sub-frontal, thus producing curtailment of the lower part of pre-oval lobule, brings about resemblance to the ape-form of the fissure; marks inferiority; may occur in small-head idiots, in whom also the anterior portion of the fissure may be irregularly developed or broken up, but seems to be always represented more or less.

It has been held that the posterior ascending terminal vertical piece of the fissure represents, in the human brain, the sulcus cruciatus of the carnivore brain, and that in primates this *posterior ascending end of the sub-frontal fissure*—but in osmotic animals and marine mammals the *front end of the sub-parietal fissure*—bends up as sulcus cruciatus. In relation to this view, Eberstaller offered the explanation that

this so-called posterior ascending end-piece of the sub-frontal fissure is really a morphologically independent furrow-element, which in the former case (brains of primates) joins the sub-frontal fissure, this being, in them, predominant and separate from the sub-parietal fissure; but in the latter case (brains of other animals just mentioned) joins what is in these the much stronger sub-parietal fissure, owing to relatively defective influence of frontal brain. I have mentioned above a deep annectant gyrel somewhat obstructing the bed of the fissure at the junction of its vertical upturn with its horizontal main line, and he observed two exceptional cases in women (and one in a foetus) in which this usually deep annectant was superficial, thus cutting off the vertical end-piece entirely from the rest of the sub-frontal fissure, and in one of them the vertical piece made an uninterrupted union with the sub-parietal fissure, and presented a form "completely analogous" to that of the sulcus cruciatus of carnivora.

At the beginning of this chapter are mentioned two examples of very complex and unusual connections and relations of sub-frontal upturn and sub-parietal fissure. They are essentially similar to the case last cited. In one (left) the sub-frontal fissure sent up a spur or abortive upturn in front of an almost completely superficial annectant gyre which crossed between *fornicatus* and back part of oval lobule, directed nearly vertically. Athwart this annectant gyre ran a slight groove recurring from the spur in front, and joining it very shallowly, behind, with the true upturn of the sub-frontal, which last at its lower end united with the sub-parietal fissure, over a moderately sunken gyrel. From about the middle of the sub-parietal a flexuous and irregular, nearly perpendicular, sulcus was given off, and attained the upper hemispherical edge. Much of the first temporal gyre sank into the Sylvian fissure, and the temporal region, generally, was very irregular and anomalous. Other parts also were atypic.

In the other (right) there were three upturns or spurs, two being false, and the backmost the true one. This last was completely cut off from the horizontal reach of the sub-frontal fissure, by an entirely superficial vertical annectant gyre, and the lower part of the upturn was directed backward as well as downward, and united with the sub-parietal fissure over a sunken gyrel. The sub-parietal also sent a spur downward and forward deeply into the forni-

catus ; the spur-tip closely approaching, but not meeting, the pointed end of a similar spur from the back end of the horizontal reach of the sub-frontal fissure, and directed deeply downward and backward into the *fornicatus*. Both the sub-parietal and the transverse parietal were somewhat irregular ; and the posterior vertical spur of the former just fell short of union with the latter. The central fissure failed to attain the upper edge by  $\frac{1}{3}$  inch. Other parts of the brain were of unusual form.

A third patient had a much less unusual condition. The anterior parieto-limbic annectant was sunken to half depth or more, where the upturn of sub-frontal crossed to join the sub-parietal ; the upturn also sending a deep, bold spur downwards and forwards to the brink of the sinus of the *corpus callosum*.

In some examples the usual superficial parieto-limbic annectant is depressed at its lower part, and the upturn unites nearly as much with the sub-parietal fissure as with the horizontal part of the sub-frontal. Or the posterior upturn of the sub-frontal may send a spur into the *quadrate lobule* behind a deep annectant gyre. In relation to these forms certain schematic representation of the sub-frontal as typically—and, one is left to infer, usually—uniting with the sub-parietal fissure, errs on that point, according to my observation.

#### QUADRATUM LOBULE : OR PRÆCUNEUS.

*The formation of a præcuneolus (or anterior cuneolus).*

*The condition as observed in brains.*

Long ago I observed what at first I called, for convenience, the formation of an *anterior cuneolus*, but subsequently the formation of a *præcuneolus*. Most frequently it consists of the superficial insulation or peninsula (as far as concerns the mesial aspect) of the upper and posterior area of the quadratic surface, of triangular or wedge-shape or squarish form, and situate between the main line of the mesial part of the parieto-occipital fissure and a spur, or sulcus, which is not of the same origin in all examples.

A. Most frequently this latter furrow is the anterior prong of a forking vertical part of the parieto-occipital fissure, and I find that Broca, in a few words, mentions that incisions may pass thence into the *quadrate* or *cuneus*.\* In the simplest

\* Just as this goes to press I have met with a figure from Wilder, by Mills, in which the cut-off is shown and somewhat similarly named.

and peninsulating case this spur ends just short of the upper hemispherical edge; or in the simplest insulating form the fissure only notches the upper cerebral surface at the verge of the interhemispherical chasm. But when the deviation from usual form is more considerable, this branch of the fissure may be continued far out on the upper lateral surface of the hemisphere, and with a course and relations to which we will presently recur. Yet in some cases the portion of the cortical area of the quadrate, thus superficially isolated, is not cuneiform or triangular, but is oblong or squarish, the sulcus cutting it off being rectangularly bent, as if representing a tooth (and its adjunct) of a Neptune's trident. In still other examples the insulated area consists of the posterior narrow band of quadrate's surface, bordering on the parieto-occipital fissure, and marked off from the rest of the quadratic surface by a fissure-duplication of this vertical part of the parieto-occipital, close to, and parallel with, the latter, and ascending from the "stem," or close thereby.

B. But in some other cases the quadratic island or peninsula is apparently formed otherwise. For although at first glance it appears to be produced like as in cases in which the insulating branch of the parieto-occipital fissure is boldly carried to the upper and lateral cerebral surface, yet further study of the parts seems to show us a furrow beginning near, or at, or beyond the interparietal sulcus, and running thence inwards, or backwards and inwards, into the great cleft, and then down on the quadrate to, or nearly to, the parieto-occipital fissure, or reaching the latter by a shallow confluence. This represents a deviation of the spur, from the interparietal, bordering part of the anterior meander of the first annectant. Occasionally it may represent a parietal furrow (of Jensen) situate far back, or a duplication of the same. What are abnormal are its position, relations, and effect, and it is of less immediate concern to establish its identity. Yet possibly the apparent differences between the two sets of cases are sometimes partly due to a bridging, or an incomplete one, at the origin of the peninsulating branch of parieto-occipital. And, indeed, the general accompanying conditions, and the other signs of defective or aberrant type of brain-development, are much alike in the two.

In some cases the *præcuneolus* is more or less sunken or partially hidden.

In some such cases it is obviously a depressed and mesially curving portion of the first occipital gyrus, forming the first

external annectant parieto-occipital gyrus, or is a deep annectant substructure attached thereto. This observation might be taken to favour the view of Bischoff as to the superior internal annectant gyrus of Gratiolet in apes being homologous with the first external annectant gyrus, or its representative, in man, and therefore that in man the one of these, or its representative, is absent when the other is developed; and to disfavour the opposing tenet of Ecker. But sometimes one finds on the parietal wall of the median limb of the parieto-occipital fissure, two gyral coils, in semi-circular relief, descend to the depth of the chasm, and, closely hugging one another, cross to ascend, blent in one, on the occipital wall. And of these half-rounds in relief, in the former situation, the upper is obviously related to the first external, the lower to the first internal annectant.

**COMMENTARY.**—In the human foetal brain may occasionally be seen the foreshadowing of the formation of a *præcuneolus* or anterior *cuneolus*. This is usually vague at first. But the full-time foetus may exhibit a distinct incomplete *præcuneolus*, and with this may be other signs of unusual conformation, as *e.g.*, a *cuneo-limbic* annectant gyrus rising to the surface, or a prong of the conjoint stem also ploughing up into the *cuneus*. And a tendency to, or degree of, the formation of a *præcuneolus* is observed in some examples of *microcephaly*. While in the higher apes (*e.g.*, chimpanzee) a partial similar peninsula is sometimes or at least occasionally seen.

The condition is an example of deviation and formative activity rather than of defect and formative inertia; in the human adult is a somewhat unusual conformation which, although in some cases of developmental character, often indicates a reverting tendency and phylogenetic significance.

When a posterior marginal zone of the *quadrate* is cut off by a duplication of the internal limb of parieto-occipital fissure, the state is like the doubling of the parieto-occipital fissure occasionally observed in anthropoid apes.

*Other deviations or anomalies of quadrate lobule than those already mentioned.*

Besides the anomalies already mentioned, the *quadrate* may be lessened by the far-back coming of the sickle of the *calloso-marginal*; or, on the other hand, the unusually forward upturn of the latter may leave the *quadrate* large. Its upper and anterior corner may be shallowly insulated. It

(Q) may be almost completely fissured off from the forniciatus; and it is often furrowed through to the forniciatus by the parietal (of Jensen). It may be invaded by extra upcurves or branches of the sub-frontal fissure, or it may be much split by vertical or oblique fissures, or may be the area of conjunction of rami of sub-frontal and parieto-occipital, or of sub-frontal and transverse parietal sulci. Extraordinary irregularity may mark the quadrate's furrows, which—as well as the parts of the sub-frontal or other furrows anterior thereto—may take on the most bizarre arrangement.

Division asunder of the sub-frontal fissure occasionally permits union of an anterior parieto-limbic with a fronto-limbic annexant.

*Conditions often associated with the above deviations of the quadrate, or with the frontier—or cuneal—states subsequently described.*

Associated either with certain cuneal, or with frontier, states, yet to be delineated, or with the præcuneal conditions described above, are, often, other aberrant or defective conformations in the same or in adjoining parts of the brain.

For example, in some cases there is some degree of continuity of the "stem" with the hippocampal fissure.

In some, the cuneo-limbic annexant gyrus (Zwickelwindung), which in an undisturbed state of the parts should be sunken and concealed, is abnormally found to be more superficial and obvious than usual.

Or the vertical part of the parieto-occipital fissure may bifurcate or trifurcate boldly when nearly arrived at the upper edge of the hemisphere; or may send long spurs furrowing the cuneal surface, or præcuneal, nearly straight backwards, or forwards, or both.

Although in some cases its external part is short, yet in some of the brains of inferior type this external part is long, and there is a tendency to groove or channel the upper surface of the first external occipito-parietal annexant fold, and to run out thence on the upper cerebral surface, and into and across the interparietal sulcus, or beyond it, and perhaps far down, so as to join or cross the continuation, or a spur, of the first temporal furrow—coursing far back—or of the second.

Yet, in some of the cases in which the external being wide, the continuity of the two parts of the fissure is broken by a triumphant first occipital gyrus, we nevertheless, immediately beyond this bridge, or slightly behind it, find what is obviously the representative of the external limb of a parieto-occipital fissure (in this event discontinuous) which bears itself in the manner last described as being the course of a few continuous parieto-occipital fissures. The anterior continuation of the first occipital gyrus just described as "triumphant" is also rightly entitled to the qualification "bridging," so often misapplied to gyri, hereabouts.

But whether strictly continuous, or discontinuous, or of intermediate type in this respect, the external part of the parieto-occipital fissure is sometimes a deep irregular cleft, a bold dividing and bounding fissure, nearly straight or zig-zag in course, the walls of which present rounded elongated projections in relief, and sometimes, as well, gyri coursing athwart the chasm and deeply hidden away in it. Thus, I have seen in man the representatives of the second external annectant of the lower simian brain, which had not fully attained the surface. The chasm also sometimes leaves or bevels behind it a distinctly projecting occipital lobe which breaks the gradual even curve of the posterior declivity of the cerebrum, and very slightly reminds one of the chasm and operculum of the lower apes.

The parieto-occipital fissure is sometimes situated far back, so that the occipital lobes are short and small.

In one case, with both quadrates affected with "præcuneoli," the external limb of the parieto-occipital fissure was very short on one side, long on the other; and the posterior central gyri, temporal gyres and furrows, and interparietal sulcus, were very abnormal in conformation.

Again, a long bold inferior occipital fissure may run fore and aft almost from occipital tip to second temporal sulcus.

Other conditions apt to accompany the formation of a præcuneolus, and of a cuneolus (yet to be described), and the aberrant states of occipito-parietal frontier; concern the cuneus, other deviations of quadrate, sub-frontal fissure, fornicatus, transverse occipital sulcus, superior parietal lobule, first temporal gyrus; unusual furrows; formation of large islands of cortex.

## FRONTIER MORPHOLOGY : PARIETO-OCCIPITAL FISSURE.

As a frontier element, and already touched upon, we may conveniently take, here, the parieto-occipital fissure. Besides the deviations already mentioned, such as its crossing a grooved and depressed first parieto-occipital annectant gyre, and conjoining with interparietal sulcus or its spur; the parieto-occipital fissure may present a number of deviations yet to be mentioned under other heads; and others still as, *e.g.*, the sending of a branch to parietal sulcus (of Jensen), or to sub-frontal, or joining with transverse occipital sulcus. Rarely, a more or less superficial upper internal annectant divides the fissure into two.

And, to conclude this point, we may for a moment leave the mesial surface, to follow the *external limb of the parieto-occipital fissure* on the upper surface—a subject already broached under the “associated conditions” described in the last section.

A highly marked external limb of parieto-occipital fissure, depressing the first external gyre, and passing far out on the upper hemispherical surface, is a mark of inferiority in type. It is also present in some microcephales. But whether such outward continuation (from the internal limb) represents the ape-chasm is quite another question, and in some of the higher apes the upper-edge notch of the parieto-occipital appears to be usually quite distinct from the chasm. Later on, we must consider what, in man’s brain, represents the ape-cleft; here we need only mention that the transverse occipital sulcus is by one view taken to be such representative, and in permanent form; whereas another view limits the representation of the ape-chasm to the *transitory* external perpendicular occipital sulcus, which, normally, exists only for a time during foetal life, disappearing, for good, a while before full-time birth; so that the human adult brain would show no representative of it unless by an abnormal preservation and persistence of that foetal state.

*States of parieto-occipital fissure, on mesial aspect, indicating inferiority and atypy.*

The following, I take to be atypic and signs of inferiority in adult man. They indicate reversion as a rule; but, as regards some of them, foetal-character persistence in certain examples. Each is present in certain ape-forms; in some

microcephales ; and in some foetuses also, as regards several. They are :—

An internal limb of parieto-occipital fissure interrupted by a superficial gyrus cunei, or other annectant gyre (superior internal), which has attained the surface :—

Doubling of the internal limb of the fissure ; shortness of it ; failure to reach the upper border ; slightness of its incision there :—

Its defective depth and boldness, *relatively to the calcarine*.

Spurs running fore and aft from the internal parieto-occipital limb, furrowing and practically expending themselves on præcuneal and cuneal surfaces ; or shallowly touching the upper hemispherical edge :—

Confluence of the conjoint “stem” of calcarine and parieto-occipital with the collateral fissure. This is sometimes made (often shallowly) by a rectangular groove across a somewhat sunken retro-limbic annectant gyre.

#### GYRUS CUNEI.

*The gyrus cunei* is another frontier element, the superficial position of which has just now been spoken of as a departure from type and sign of inferiority.

The deviations from usual type of the gyrus cunei, or cuneo-limbic annectant, are of importance. This gyre is almost always present and deep in man ; it was found absent in about 3 per cent. only, superficial in about 4 per cent. only, by Cunningham. As a rule, it is deep in gibbons, also. In other apes it is superficial.

Its structure I find to be very complex. It consists chiefly of half-round, or one-third-round, coils in relief, twisted around each other, especially as regards two such. For example, in one case, following it from its issue from the limbic region, *backwards*, I observed the two chief coils, *in basso-*, or almost *demi-relievo*, present the following turns :— The one more externally situated, and, of the two, the further away from the observer, had seemingly come from below the other, and, as one followed it backwards, was now, in relation to the other coil, successively, external ; above ; internal ; below ; and then entered the cuneus to form its lower zone, bordering on the calcarine fissure. The other half-round in relief, similarly followed, was, in relation to the first one, just the reverse, namely, in succession, internal ; below ; external ; above ; and then entered as if to form the anterior

coast of the cuneus skirting the internal parieto-occipital fissure.

The coils are not usually so much twisted as in that case, but the two chief ones seem to enter and distribute themselves as just described ; one on the lower zone, the other on the anterior zone of the cuneus. A third one, further from the mesial surface, strikes in more deeply, and into the middle region of the cuneal substance. Its trophic relations may be chiefly with the upper posterior part of the cuneus. This appeared to be so in a case of mine.

In that hemisphere, there was no anterior cuneo-lingual annectant gyre, but the posterior cuneo-lingual was superficial and cut off the posterior vertical divaricating rami of the calcarine fissure, situated on the posterior occipital surface, near the mesial edge ; and close thereto began a sulcus, lying on the postero-external aspect, in line with, and beginning close to, the end of the calcarine, and its forward course being on a level about opposite to that of the calcarine fissure.—Query : A persistent foetal “ external calcarine ” furrow ?

The calcarine's end was directed in an unusually upward and oblique line, on the surface, and crossed the edge above the occipital pole, and its *icut* was upward. The lingual lobule sent a depressed and rejoining loop into the “ stem.” Depth of “ stem ”  $\frac{7}{8}$  inch. Depth of internal parieto-occipital fissure  $\frac{5}{8}$  inch ; of calcarine, in front  $\frac{1}{2}$  inch, behind  $\frac{1}{4}$  and  $\frac{3}{16}$  inch ; of its cross piece, at junction,  $\frac{7}{16}$  inch.

The rest of the posterior mesial surface is occipital, and may be more conveniently dealt with in the next chapter, on the Occipital Lobe.

#### CHAPTER IV.

##### OCCIPITAL LOBE (*including its Mesial Surface*).

###### THE CUNEUS. ITS CONDITIONS OBSERVED IN BRAINS.

In some brains it has struck me that there is a sort of inverse relation in size betwixt the quadrate lobule and the cuneus.

The cuneus may be small, it may be very irregular or twisted, it may seem to be connected by canal with the sub-frontal fissure by the intermedium of spurs running fore and aft from the parieto-occipital fissure.

In some cases, there is insulation or peninsula of a cuneiform portion of its surface, which I term the formation

of a *cuneolus* or *posterior cuneolus*. For, occasionally, a posterior prong of a bifurcating or trifurcating internal limb of parieto-occipital fissure cuts off, or nearly so, a triangular portion of the cuneus, and chiefly its upper and anterior part.

This, too, is apt to be more or less sunken, concealed, and only to be found on loosening of the parts. For it may consist of an unusual form of the superior internal parieto-occipital annectant gyrus, and of the furrow bordering it posteriorly, which last now drives deeply into the cuneus, ploughing off the upper anterior triangular area of its surface, and, in at least some examples, amounts to a fork of the parieto-occipital fissure. In transition cases between this and the more usual and normal arrangement, the cortical area (*cuneolus*) between the forks is somewhat sunken, lying externally and laterally to the general mesial cerebral surface plane.

And occasionally an irregularly triangular upper and posterior, or upper, part of the cuneal area, along the great cleft, is furrowed off by an occipital furrow, or an unusually or aberrantly developed one, running from above nearly across the cuneus to the calcarine; or running from before backwards.

That some of the above conditions of the cuneus represent degrees of the atypic, and reversion towards lower form, seems to be clear if one reflects upon the progression in conformation from the lower simian brain, to that of the higher anthropoid apes, and to that of man.

COMMENTARY.—In high ape (chimpanzee) may also be a tendency to form a *cuneolus* by a spur from parieto-occipital fissure.

In the full-time human foetal brain (of aberrant type?) a condition resembling the formation of a *cuneolus* may be found; a continuation of the stem, or a spur of parieto-occipital fissure, cuts off, or nearly so, an upper and anterior triangular portion of the cuneal surface, and with this the superior internal annectant gyre \* may become incompletely or completely superficial, and in some cases the fissure cutting off the *cuneolus* appears like an extension of the stem.

Moreover, and this is another subject, this extension of the stem may end in a bifurcation at nearly a right angle to

\* This, at least, I take it to be, and not the inferior or cuneo-limbic annectant as it is figured and described to be by Cunningham, in an example of the kind.

the main trunk of the stem, and the posterior spur may partly cut off the upper irregularly triangular shaped marginal zone of the cuneus ; and by its junction with other furrows this may explain, in some cases, the cut-off there, already mentioned under "cuneolus."

In the human foetus, even in the sixth month, may be an appearance as of a spur from parieto-occipital fissure running on mesial aspect, and cutting off the upper and irregularly triangular zone of cuneus ; the second of the two conditions just mentioned.

There may be a foetal state correspondent to the condition of fore and aft forking of the parieto-occipital fissure on mesial surface, which I have already described incidentally (under *præcuneolus*). A similar fore and aft forking of parieto-occipital fissure is figured in a microcephale, by Giacomini.

As to the significance of *the formation of a cuneolus* or *posterior cuneolus*, the remarks applicable here are somewhat of the same general drift as those already made in reference to the formation of a *præcuneolus*.

**CALCARINE FISSURE.**—In some low-type brains, I found the calcarine fissure beginning, posteriorly, much further forward than usual, but sometimes with a short curving sulcus behind it. In this way, much of the posterior part of the calcarine had disappeared ; and there seems to be a reversion towards ape-type ; the condition being in some cases, perhaps, modified by a superficial position of the posterior cuneolinguial annectant gyre.

The back part of the calcarine fissure absent, or slightly marked ; or in small segments separated by superficial bridging gyres ; or very jagged or zig-zag ; are, all of them, states which seem to be more or less atypic, and signs of inferiority, in man.

Confluence of the conjoint stem (of calcarine and parieto-occipital) with hippocampal fissure has been widely accepted as a mark of defective form in the human adult brain. But the evidence on this point does not tell all in one way.

A deep calcarine fissure uncrossed by sunken annectant gyrels, preponderant *relatively* to the parieto-occipital fissure, and bounding a small cuneus, indicates a retrograde condition, approximating simian type ; and is found in some small-head idiots.

For a long time, I have found convenience in adopting

the usage of the short German name *stem* (" *stamm* ") for the conjoint continuation of the calcarine and internal parieto-occipital fissures ; and it is so named in this article, and separately from the calcarine fissure between the cuneus and lingual lobule.

It has been stated that, in the calcarine fissure behind the stem, the opposing walls of the fissure are vertical, the fissure incising the cerebrum at right angles to the surface, whereas the stem cuts obliquely downward into the hemisphere ; and morphological importance has been given to this in relation to the separate development of these two parts, and the different phylogenetic significance attributed to them. But I have not infrequently found the calcarine fissure, behind the stem, present a more or less obliquely downward incut, in the same direction as that of the stem, but in much less degree as a rule. Sometimes, only part of the fissure manifests this obliquity of incision into the cerebral substance. Thus, the anterior part, or half, only ; or the anterior and posterior portions (say, thirds) only ; may have this slanting state of the fissure-walls ; the posterior half in the former case, the middle third in the latter, making a cut into the cerebrum at a right angle to the surface. In some cases the whole of the calcarine fissure shows the downward slant. As an example of this, may be mentioned the last necropsy but one I made before the writing of these lines. The calcarine cut obliquely down into the brain ; and it was not a stem prolonged into the cuneus, but a perfect calcarine fissure, strongly marked, and terminating behind in a vertical furrow formed by its divaricating rami, situated on the posterior occipital aspect fully, and away from the edge marking the junction of posterior with mesial surface. The lingual lobule thus formed a slight operculum overhanging the fissure, and dominating the cuneus. The anterior cuneo-lingual annectant gyrel was *very* deeply sunken and small, the posterior one was deeply sunken. An arm of a terminal posterior cross-piece of the lingual sulcus bore somewhat into the calcarine, at the junction of the latter's posterior and middle thirds, carrying before it an arc of lingual cortex. The long collateral fissure ran to about the occipital tip, and to within  $\frac{1}{16}$  inch of the calcarine fissure ; it was otherwise unusual. The gyrus cunei was very intricate ; the upper internal parieto-occipital annectant was very noticeable, one half-round, in relief, coming from parietal side and inserting itself between two such from upper

anterior angle of cuneus. On sounding the depth of the fissures, the following measurements were obtained :—Internal parieto-occipital fissure  $\frac{5}{8}$  inch at deepest part ;  $\frac{9}{16}$  inch near upper hemispherical edge : stem  $\frac{9}{16}$  ; calcarine fissure  $\frac{1}{2}$  inch, both just behind the anterior cuneo-lingual anastomosing gyre and just in front of the posterior one. The brain was irregular and defective in conformation in several respects.

While this *downward* incut of the calcarine fissure is not infrequent in inferior brains, the middle or posterior third occasionally has an *upward* incut.

Occasionally, the posterior part of the calcarine, behind the posterior cuneo-lingual anastomosing gyre, is the deepest part of the fissure ; as in one of my degenerate cases in which that part had a depth of  $\frac{5}{8}$  inch, the deepest other point being  $\frac{1}{2}$  inch. In the other hemisphere of the same brain the posterior part of the fissure was also the deeper. In another case the anterior part of the calcarine had a depth of  $\frac{7}{16}$  inch ; the posterior part, of  $\frac{9}{16}$  inch. In another, the anterior part of the calcarine was  $\frac{7}{16}$  inch deep ; its posterior terminal divaricating rami were at deepest,  $\frac{9}{16}$  inch in depth. This last was in a left hemisphere ; in the right one, of the same brain, the anterior part of the calcarine was  $\frac{7}{16}$  inch deep, the posterior only  $\frac{6}{16}$  ; and, differently from that of the other side, ended in a single simple spur, posteriorly. It will be borne in mind that the “stem” is not being included here ; but for convenience is spoken of separately.

My experience does not coincide with that of Sernow as to division of the calcarine into two being rare (unless, indeed, we leave its terminal rami out of view) ; and as to shortness of calcarine being in some cases from defect of its anterior section (except in so far as may be due to a rise of the anterior cuneo-lingual to the surface).

In a number of cases, there appears to be an inverse relation between the size, development, and position of the gyrus cunei and the anterior cuneo-lingual anastomosing gyre, of such kind as that when one of them is comparatively large, well-developed, and superficial, the other is smaller, more deeply sunken than usual, or even absent, or nearly so. But in some other cases this inverse relationship fails.

The *anterior* cuneo-lingual anastomosing gyre may be set further back than usual, the *posterior* one further for-

ward. And, either with or without this relative shifting, there may be three cuneo-lingual anastomosing gyrels grouped more or less closely together. These dispositions are apt to exist in some of the cases in which the posterior part of the calcareine—or its terminal forking—is deeper than is the anterior half of the fissure.

An unusually far-back position of the anterior cuneo-lingual anastomosing gyrel, especially if with downward incut of the calcareine, shows inferiority, and an approach to the ape form.

Likewise, a far-back posterior cuneo-lingual gyrel, only cutting off the posterior rami of the fissure, which are sometimes deep, denotes inferiority. (Moreover, Cunningham found this form more frequent in human foetus and in adult negro, than in adult white.)

Inferiority may also be indicated by the termination of the calcareine behind, in a single simple unbranched end. One must dissent from Sernow's statement, if the abstract from his work in Russian is correct, that such a posterior end is usual. A contrasting, rare, deviation consists of a calcareine with two posterior bifurcations and pairs of rami.

In connection with the stem and calcareine it is desirable to refer briefly to the *collateral fissure*, although the latter is outside the scope of the present article.

Concerning the *confluence of the stem and collateral fissure* on inferior cerebral surface: in human foetal brains the middle piece of the collateral fissure (it begins in two or three pieces) is sometimes connected with the stem, and has then a more or less transverse direction, is the only part of the collateral fissure which is a complete or total fissure, for it, alone, occasions a fissure-girding fold which ever forms an *eminentia collateralis* on the intra-ventricular aspect, if and when that eminence is of fissural origin. But, as long well known,\* this eminence is not always present in man; the collateral fissure is constant. The connection between stem and collateral may be seen in some foetal brains in the sixth or seventh month. Cunningham† quotes Seitz's observation of this connection in the left hemisphere of an adult male Fuegian. When present in the human adult, I find it is usually made by a somewhat shallow, or not very deep furrow, grooving the retro-limbic annectant gyre, and crossing from the conjoint stem, rarely

\* Jung, cited by Ecker.

† *Memoir*, 1892, p. 72.

from the "posterior" calcarine, to the collateral, at about a right angle to both; somewhat like the arm or piece rectangularly joining a bayonet-blade to the musket-barrel.

It is always, or at least usually, an element in the formation of the girdle of furrows, *fissure-girdle*, which I have observed, and have described above, in Chapters II. and I.

It may represent abnormal persistence of an inconstant and transitory foetal state.

In some brains of a low order or aberrant type, I have found two apparently contrasting states of the collateral fissure; for in some it is defectively developed, broken up into separate scattered representative fragments; whereas in others it is long, bold, and coursing on the inferior occipito-temporal region almost from tip to tip of the two lobes. The former state of the fissure seems to indicate arrested development; the latter, reversion in form.

The collateral fissure may quite differ in depth in the two hemispheres of the brain.

In a brain of aberrant form, it may skirt along the coast of a relatively narrow gyrus hippocampi and end, behind, very close to the posterior end of the calcarine fissure.

It may terminate behind in a cross-piece formed by its divaricating rami, on the postero-mesial aspect, just below, and at right angles to, the calcarine vertical terminal cross-piece; therewith, the sulci on upper parieto-occipital region being also very irregular and complicate or duplicate.

#### TRANSVERSE OCCIPITAL SULCUS.

The transverse occipital sulcus may run close and parallel to the outer limb of the parieto-occipital fissure, only separated from it by a thin gyral fold or ridge.

Its outer end may receive the conjoint and sometimes much-curved furrow formed by the meeting of the parieto-occipital fissure and inter-parietal sulcus; and the sulcus may curve mesially to, and on, the cuneal surface, not far from the upper border. (See "Cuneus" for discussion of some of these conditions).

Or the transverse occipital sulcus may run a little distance outwardly and downwardly on the superior cerebral aspect, and then curve slightly forward and join with the external limb, or continuation, of the parieto-occipital fissure. It may be cut off from the inter-parietal sulcus. It may zig-zag outwards and forwards.

Other things equal, its unusual nearness to the external limb of the parieto-occipital fissure, in their somewhat parallel course, or separation only by a narrow ridge, seems to mark a defect in the advance of the human on the simian brain just thereabouts—if the homology of Ecker be accepted. And its junction with the external limb, or continuation, of parieto-occipital fissure, occasionally seen, appears to have much the same significance. This junction is also effected in some idiot brains.

*Theories on the transverse occipital sulcus (of Ecker).*

The sulcus occipitalis transversus of Ecker was by him identified with the fissura occipitalis externa of Pansch, and with the fissura occipitalis perpendicularis externa of Bischoff.

The two chief views on the nature of the sulcus named transverse occipital by Ecker, as found in human adults, are as follow:—

I. That in man it represents the ape-cleft (or an element of the latter) which demarcates the simian occipital operculum in front (∴, = “affenspalte”).

II. That it is a dependency—in fact the posterior bifurcation and rami—of the occipital portion of the interparietal sulcus, and is quite independent of the ape-cleft proper.

In support of the latter, Cunningham adduces the state of furrows found in one hemisphere of a new-born child, which he takes to mean the co-existence of representatives of the transverse occipital sulcus and of the “affenspalte” in that instance.

Besides those who openly assert the identity of the two, Broca, as the “external occipital fissure” (using the name in a sense equivalent to external, or superior, or horizontal limb of parieto-occipital fissure), describes what is evidently, although he does not mention it, the transverse occipital sulcus of Ecker.

Its inner end starting in the concavity formed by the occipital meander of the first external parieto-occipital annectant gyre, this external occipital fissure is continued at least as an incision received in a curving fold of the second external annectant. This sulcus extends outwards on the cerebral convexity to an extent varying with the depth of the incision continuing it into the second external annectant, and with the extent of the depressed grooving which may occur on that annectant, and beyond it laterally.

As a rule, the occipital meander of the first external annectant separates the fissure in question from, and thrusts it behind, the notch of the *internal* occipital fissure in the upper hemispherical border. But if that meander be locally depressed, the external part of the parieto-occipital fissure becomes directly continuous with the internal part or limb as in most apes and also in some human brains. As in the first case, so also in this, the sulcus extends outwards on the upper surface to an extent varying with the length and depth of the incision continuing it into the occipital insertion of the second external annectant gyrus, and with such depressed grooving as may occur on this gyrus, and on gyres beyond it, laterally; so that this form of the external occipital fissure occasionally becomes long and far-reaching.

A distinct well-marked formation of this "external occipital fissure," Broca attributed to the convexities of the meanders of the two upper external annectant gyres being set back to back. But now let them develop in a position shifted from that of being set back to back, and so that the convexities of the one correspond more or less with the concavities of the other in the parietal and occipital meanders of the two gyres; then, more or less, also, the meanders become mere flexuositates, the inter-parietal sulcus seems to be continued far back on the occipital lobe between these two upper (and, here, occipital) gyres; the notches on their confronting borders cease to be directly opposite to each other; and, having thus lost their confronting position, their typical transverse direction, and their usual depth, they become difficult of recognition.

#### *Representation of Ape-chasm in Human Brain.*

Is the ape-cleft represented in the brain of the human adult?

If it is, is it represented by the transverse occipital sulcus (of Ecker)?

Or is the representation made by the more less shallow, direct continuation from the internal parieto-occipital occasionally found on the superior, or superior and lateral, aspect of the hemisphere?

Or is its homologue the anterior occipital fissure (of Wernicke)?

Or is it represented, in normal conditions, only by the foetal and temporary sulcus of Bischoff?

And if the sulcus of Bischoff is, normally, in the human subject, only a foetal furrow which disappears for good and leaves no vestige after birth, does it ever persist as an abnormality in adult life? And if so, in what form and position?

There are a number of brains which have occipital fissural elements possibly representing such persistence. I incline to think the occipital furrows to have been hitherto imperfectly described, and that Ecker's description and figures of his sulcus occipitalis transversus may refer to, and include, two inconstant furrows, each of which, in different cases, as the one or the other predominated, might be taken to be the transverse occipital sulcus. Anatomists seem to differ in their recognition of this sulcus. Indeed, there are in some brains two furrows, either of which might be taken as the sulcus of Ecker; in others only one.

Sometimes on the upper occipital surface there are even three (or four?) more or less transverse furrows (quite irrespective of, and behind, the parieto-occipital fissure and any *direct* continuation of it). One of these may represent a persistent sulcus of Bischoff. The following are examples of the kind which happen to be in the brains most conveniently at hand:—

1. In the first: The parieto-occipital fissure was directly continued somewhat shallowly over a depressed first external annectant gyre. The interparietal sulcus debouched into a short transverse occipital sulcus, immediately behind which the line of the interparietal sulcus, as interoccipital sulcus, was continued over, and backward beyond, a well-marked deep gyrel. Behind and nearly parallel to the transverse occipital sulcus, but directed slightly backward in its outward course, a sulcus ran transversely outward; across, and some distance beyond, the inter-occipital sulcus, and nearly to what was taken to be a very irregular inferior occipital sulcus. Inwards, the sulcus under description ran over a depressed grooved edge of the first occipital gyre—at a point about the middle of the antero-posterior diameter of the cuneus—to the mesial surface, where it entered a longitudinal cuneal sulcus, which nearly cut off a narrow marginal cuneal tract bordering on its upper edge. The posterior wall of the long transverse sulcus overlapped the anterior wall, forming a small but distinct operculum. The first occipital gyre was wide, and was somewhat sunken on its upper surface between the parieto-occipital fissure and the operculified sulcus just described.

2. In the second: Shortly behind the parieto-occipital notch the interparietal sulcus entered a distinct transverse occipital sulcus. The outer of the two divaricating rami of the latter was partly separated by a deep crossing little gyre from the point of division of a furrow behind it, consisting solely of two rami, one downward and outward, the other inward and slightly forward, and ending very close to, and being perhaps practically a continuation of the outer end of the anterior of two transverse and parallel little furrows, connected at their middle by a third sulcus, the three being like a letter H resting crosswise on the hemispherical edge, and sending down the two inner ends on the mesial surface, between which ends a long spur from a sagittal intra-cuneal sulcus rose nearly to the upper hemispherical edge. The hinder of the two main limbs of the H-shaped sulcus was overhung by its slightly opercular posterior wall. The condition seemed somewhat similar to that of the first case, but with a very irregular and reduplicated form of the sulcus trending on the mesial aspect.

Still further back, beginning very close to, and on a level with the calcarine, was a sulcus in the position of a persistent foetal "external calcarine fissure."

3. A third hemisphere, shortly behind the parieto-occipital fissure, showed a partly interrupted, oblique, and curving sulcus (transverse occipital sulcus?), crossing the inter-occipital sulcus. Behind that former sulcus was another transversely-set one, running obliquely from mesial aspect, near the internal parieto-occipital fissure, nearly cutting off an upper and anterior triangle of cuneus, and then out on upper surface, being separated from the inter-occipital sulcus by a slender gyral fold, and showing a deep little gyre sunken in its course. The posterior rami of inter-occipital, far back, ran, one to near occipital tip, the other to inferior occipital sulcus. The outer edge of the wide first occipital gyre was overhung by the opercular-edged second gyre.

4. In a fourth the general arrangement was somewhat as in the first, but the sulcus coursing over on to the cuneus, and there entering at a right angle into a high-placed longitudinal cuneal furrow, did not, in this hemisphere, on the external aspect, reach the inter-occipital sulcus (which last was irregular and interrupted by somewhat sunken gyrels). Behind the former another transversely-placed sulcus was shallowly confluent with the inter-occipital, over sunken gyrels, and its posterior wall was slightly opercular.

All the above four were *right* hemispheres.

5. In the *left* hemisphere of the second case above, the interparietal's "occipital ramus," after giving off a spur bordering the annexant just behind the external limb of parieto-occipital, continued straight backward into a terminal transverse sulcus or cross-piece. Between the spur and cross-piece just mentioned a sulcus began, ran thence obliquely backward and inward, crossed the border, passed down and back on mesial surface, nearly cutting off a narrow posterior and upper triangle of cuneal surface.

But behind the cross-piece already mentioned a *bold sulcus overhung opercularly from behind*, ran, from just at the upper hemispherical edge, downward and slightly forward; being set far back on the external arch of the cerebrum, and entered an antero-posterior sulcus below, and nearly at the point of junction therewith threw off two backward spurs, of which one was also somewhat upward, the other also obliquely downward.

This bold sulcus may represent a persistent foetal external perpendicular occipital sulcus (of Bischoff).

In a sixth hemisphere were two transversely-set occipital sulci connected with inter-occipital apparent continuation of inter-parietal. The gyral fold between them was opercular forwards.

Sernow seems to have been baffled by the inconstancy in number, the varieties in direction, and the failures in appearance of the transversely-set occipital furrows.

#### OCCIPITAL OPERCULUM.

Tendency to an appearance slightly resembling the simian occipital operculum indicates a tendency to reversion towards that form, which only needs mention.

#### REVERSED OCCIPITAL OPERCULUM, OR POSTERIOR PARIETAL OPERCULUM.

In this formation, the simian occipital opercular type is reversed, and the occipital lobe takes on, somewhat or slightly, the aspect of a buttress, a sort of curved abutment, under the beetling brow and backward crest of the parietal. With this, the first occipital gyre tends more or less to be depressed in front by a branch, or by the main trunk of the parieto-occipital fissure.

The more vigorously developed parietal lobe projects a

little backward, and slightly overhangs the occipital, forming a little operculum as an indication of domination.

This "reversed occipital operculum" (as I ventured to call it)—or little parietal operculum—is a deviation from the accepted form, which I observed a number of years ago. I think it may be taken as an unusual condition when it is extremely marked, but in the direction of lack of balance as being due to a mode of formative activity tending to high evolutionary type, but somewhat overdone, as the manifestation of an over-activity on the more important line of evolutionary advance, with some *relative defect of activity* on the (occipital) line which, normally, should offer a due and appropriate measure of resistance to the one which has become predominant, at the point in the animal scale represented by the brain of modern civilised mankind. It may be taken to be the lower part of the parietal lobe to which these statements are more especially applicable.

If the above is correct "the reversed occipital operculum," or posterior parietal operculum, so far as it goes, signifies something of high type, yet associated with impaired balance, with defective occipital ontological formative activity and phylogenetic endowment.

The cases with this form had more or less of the impress of hereditary mental degeneracy, with elements either of imbecility or of paranoia.

#### OCCIPITAL GYRES AND SULCI AND LOBES GENERALLY.

It is now time to say some words on the occipital lobes and their constituents, from a general point of view.

In a few cases I found an appearance as of five long, narrow, superimposed tiers of gyri showing on the mesial aspect of the occipital lobe, owing to unusually bold definition of intragyrus sulci, or to other fissural states.

In a few the superior or inter-occipital sulcus, or its apparent representative, was extremely irregular, or exaggerated, or both.

The first occipital gyrus may curve mesially and yet bridge the parieto-occipital fissure.

I have found atrophy of the first occipital gyre, partly compensated by a vigorous second one, possessed of very flexuous bold meanders.

In some brains the noticeably divergent occipital lobes leave the cerebellum very defectively covered behind.

Relative smallness of occipital gyri may be a markworthy

feature, for in some brains of inferior type I have observed a somewhat smaller *relative* size of the occipital lobe, at least as gauged by antero-posterior measurement, *i.e.*, a *relative* smallness of the part of the measurement—or relative index—from parieto-occipital fissure to occipital tip.

At first sight this may seem to be discomposing, in face of the usually accepted views which would implicitly teach that *relative* largeness of occipital lobes, and not relative smallness, would indicate inferiority in type (other things being equal).

Thus Rudolf Wagner long ago taught that there is a *relatively* longer antero-posterior diameter, from parieto-occipital fissure to occipital pole, in common labourers and in the orang than in learned men, in some of whom last it was only one-sixth of the total; and that in the former the occipital convolutions are comparatively few and simple.

And let us speak of the measurements along the upper border of the frontal, or parietal, or occipital lobes, as compared with the total length of the hemisphere from "frontal point" to "occipital point" along that border—this total length being taken as 100, and as a standard of comparison—whereby the *relative* occipital length, or "occipital index," is ascertained, and by means of which the *relative* length of the occipital lobes may be estimated in brains of different animals. This *occipital index* has been stated by Cunningham to be, in human adults, both sexes conjointly, 21.2; being in males 20.8, in females 21.7. In apes it is greater than in man, as an old fact in comparative anatomy, being a little greater in anthropoids than in man, and very much greater in the lower apes, particularly in those of inferior status among these last. The same observer states the *relative length of the occipital lobe* (measured from level of parieto-occipital fissure on upper border, and compared with the total hemispherical length along upper border, measured as above described, and taken as 100) to be in

Orang	...	...	...	23.2
Chimpanzee	...	...	...	24.2
Hamadryas	...	...	...	29.5
Cynocephalus	...	...	...	29.7
Mangaby	...	...	...	30.5
Macaque...	...	...	...	31.
Cercopithecus	...	...	...	32.9
Cebus	...	...	...	33.1

And he emphasises this aspect of the subject by citation and exemplification as follows:—"Gratiolet was well aware of the great distinction which exists between man and the apes in the relative length of the occipital lobes. He states that in man this lobe is extremely reduced; and he formulates the law that the more highly organised a member of the group is, the smaller is the relative size of the occipital lobes. The truth of this is at once seen by placing the occipital indices of the cynocephalus, orang, and man in opposition with each other.

#### OCCIPITAL INDICES.

Cynocephalus 29.7, Orang 23.2, Man 21.2."

It has long been well known that (of the several lobes) the *relative* antero-posterior length of the occipital lobe is greater in the anthropoid ape than in man, in the lower ape than in the higher. And Cunningham finds in the human subject the *average relative* occipital length slightly greater in female than in male, and increasing during the eighth and ninth months of foetal life by about 10 per cent. above its length in the sixth and seventh months, but apparently having its greatest *relative* length between birth and the age of four or five years. He cites Eberstaller's views to the effect that there is a relatively greater size of first parieto-occipital annectant gyre in female than in male, and great relative size in chimpanzee and orang; and that a far out-turn of the (external) parieto-occipital fissure, and of its arched bordering gyrus, marks the anthropoid-ape-like character, and shows developmental inferiority.

But if we examine the brains of microcephales we find in some, even of those who have survived to adult life, that the occipital lobes are often decidedly shortened relatively to the entire hemispherical length, or even if of good *relative* antero-posterior length (*i.e.*, parieto-occipital fissure to occipital tip), yet are curtailed in dimension and thin from above downwards, fail to fully or normally cover the cerebellum posteriorly, and look as if the lower part of the occipital lobes is deficient or small, and as if these lobes are thrust up by a high-rising cerebellum. And irrespectively of cases like this, the *relative size* of some occipital lobes in what I term *microcephaloid* conditions seems to me to be smaller than normal.

My observations of brains on this point were made without the least reference to any view or theory, and I am reassured

as to their accuracy by the reflection that the general trend of researches made of late years goes to confirm, *as regards certain points*, the conclusions of Rudolf Wagner, who, so long ago (at least) as about 1860-2,\* expressed himself to the following effect, namely :—

Microcephaly pertains partly to a developmental arrest of the posterior lobes of the cerebrum, and seems to commence in the third and fourth months of embryonic life.

Probably in all these malformations the part primarily affected by morbid change ("erkrankte") is never the skull but always the brain.

Between the constant form of the gyri of cerebral hemispheres in the brain of apes and that of those of the earlier developmental stages of the brain of the human embryo, a parallel can be shown. . . .

These conclusions were independent of others he arrived at on the general subject, and we may still adhere to them without committing ourselves to other views he entertained.

The bearing of this view of microcephaly on the matter at present under discussion is obvious. For many of the subjects of hereditary mental degeneracy, such as some of those whose brains I examined, are in reality of *microcephaloid type*. Between the microcephalic idiot and the person of normal psycho-somatic formation there is not an impassable gulf; there is not a gap representing a host of missing links, and only to be crossed by a vaulting leap of imagination. Between them there is every possible grade, a long connected series of intervening states of increasing deviation, ranging from the highest exemplar of the normal to the idiot microcephale.

And although we may not tarry by the way, assertion, here and now, of the supreme value, in these studies, of the *microcephaloid type* and conditions is what I desire to drive home with full force.

Therefore relative smallness of occipital lobes, defective development of them, undue retention of foetal characters by them, reversion to lower animal form manifest in their morphology; all are valid indications of deterioration and inferiority.

\* Vorstudien zu einer wissenschaftlichen Morph. u. Phys. des menschlichen Gehirns als Seelenorgan. Göttingen, 1860-62.

*Occipital-brain development in relation to mental status—  
continued.*

We may now further briefly refer to the question of the relative degree of development and preponderance, or the reverse, of occipital lobe and gyres, as bearing on the mental status of the individual or of the race.

It has been held by some that certain occipital gyri are of great importance in this respect. And, for the sake of conciseness, we may now briefly refer to the first occipital gyre and its anterior annectant fold, inasmuch as upon what may be established regarding it depends the fate of several views, whether to stand or to fall, or to require modification or counterpoise.

To begin with, the first occipital gyrus (with external parieto-occipital annectant) has been stated to be relatively much developed in man; and to be smaller, more simple, and less developed in negro than in white, in idiots than in normal persons, and to be far less marked in higher apes than in man; while, for practical purposes, it is slight or absent in lower apes, although this is not to deny that these last may possess a non-identifiable representative of it.

In the annectant gyri, or some of them, as well as in the occipital lobes generally, ape-like characters have been claimed for some criminals' brains, and examples of small defective occipital gyres have been recorded in some idiots, paranoiacs, and moral perverts. And it has been found in some cases that what first seemed to be a richly convoluted occipital lobe of high type has turned out, on further examination, to have a non-typical aberrant conformation of gyri and sulci, and a morbid state of local microgyria.

Rudinger carried to an extreme the view as to the predominant importance of the first occipital gyre, or first external parieto-occipital annectant. He stated that it increases in size from lower apes to primates, and so on through females to greatest fulness in males who are well-endowed mentally; and that its greater degrees of development lessen the curve of the interparietal sulcus, and so make it more straitly anterior-posterior, more sagittal, in direction, or less oblique.

These assertions have been much shaken and, at least in part, successfully controverted by Cunningham, who found the interparietal sulcus in human brains to have, on the average, a greater interparietal angle, and therefore a greater

obliquity in males than in females, in adults than in foetuses. The method of ascertainment of this may be open to improvement, however. And the greater relative length of the sagittal part of the interparietal sulcus in foetus than in adult does not seem to entirely harmonise with these conclusions.

Nevertheless, as regards its relative size, development, form, position and relations, the possession of considerable importance by the first external parieto-occipital annectant gyre remains unshaken, its human characters mark a triumph in the evolutionary struggle; a triumph which probably was a necessary step in the attainment of man's supremacy, and they remain as the stable fruit and possession of victory. Yet it may well be (as I think is the case) that this gain must now yield in immediate direct value to the evolutionary changes effected in some other parts, and that, among these last, the developmental and evolutionary advance of the representative of the second external parieto-occipital annectant gyre, and of the inferior parietal lobule in man, may mark an even greater, or at least later, triumph, and be of more supreme latter-day importance. And this is quite compatible with what we seem to find elsewhere; for example is quite consistent with the enormous importance of the evolutionary advance of the lower part of the *frontal* lobe in man as compared with other animals, in the human adult as compared with the foetus. For from amidst all the conflicting evidence on this subject, relevant to the frontal lobe, there stands out the fact of the enormous opercular growth around the insula and various other frontal changes in man, leading, *inter alia*, to complete submergence of the island in normal adult brains. And somewhat like as this view does not detract from the value of recent evolutionary advance stamped on the uppermost frontal gyre; advance which seems to be not only one of the most recent gains of the human brain, but to be even now undergoing increase and tending to incipient firmness of establishment and fixation, so to speak; so, also, with regard to the upper occipital and the lower parietal regions, the value of the advance in the one is not contravened by the importance of the progression in the other: nor should the lustre of the older triumph be paled by the splendour of the newer.

(*To be continued.*)

## CLINICAL NOTES AND CASES.

*A Case of Tumour of the Brain.* By FLETCHER BEACH, M.B., F.R.C.P., formerly Medical Superintendent, Darenth Asylum.

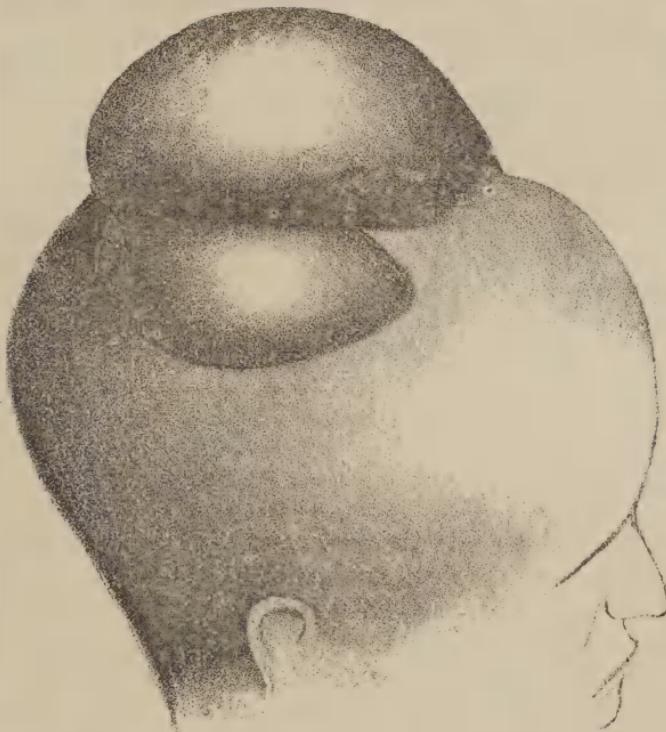
A. T., aged six years, was admitted into Darenth Asylum, October 26th, 1882, with the following history:—The patient was born at full time, but his mother had a difficult labour and instruments were required. At birth, the head was misshapen, and about a month afterwards a lump the size of a walnut formed, which was tapped twice and a small quantity of fluid withdrawn. When two years old he was run over, and afterwards the lump increased in size; it was tapped several times, clear fluid being drawn off. After the accident he was insensible for six hours, and on consciousness being restored, he was found to have lost the use of his right arm, the use of which has never returned. Afterwards he had fits, which have continued ever since. When five years old he would stand on his head and laugh and dance. Lately he has been strange in his manner, sometimes being noisy and boisterous, at others morose and depressed. The mental deficiency for which he was admitted is supposed to be due to the use of instruments at his birth, and to his being run over.

I may here say that from histories which I have obtained, I find that the use of instruments is a much less frequent cause of idiocy and imbecility than tedious labour. Prolonged labour and asphyxia of the child are fairly common causes, and both of them were present in this case.

The father had died of phthisis, and there was a history of paralysis in the family. The parents had both been temperate and were not connected by consanguinity. This was the third child. Of the two elder children, one suffered from spinal disease, the other was healthy. Three younger children had died of bronchitis.

On admission A. T. was found to be a well-nourished boy, of fair complexion, with irregular contour of head caused by a tumour. It was two-lobed, large, smooth and globular, giving an elastic resistance to pressure, and apparently contained fluid. The scalp covering it was overgrown with hair. At all parts it came by its base in direct continuity

with the cranial bones, except at a part corresponding to the upper margin of the left frontal bone, where there was felt a soft depression, about  $\frac{1}{2}$  inch in width by 1 inch in length, between the bony margin, which was very distinctly felt, and the base of the tumour. One lobe was larger than the other, the right measuring 4 inches and the left 7 inches antero-posteriorly. At the posterior margin in the median line there was a receding portion, into which the



TUMOUR OF BRAIN (Drawing reduced to half size), DR. FLETCHER BEACH.

tip of a finger would fit. The cranial surface was irregular and lumpy.

The head was of fair size, measuring in circumference 20 inches; width of forehead  $3\frac{3}{4}$  inches. There was bulging of the right side of the nose, nearly occluding the anterior nares. The gait was awkward and weak, there being stiffness of the right leg and right talipes equinus. There was paresis of the right arm with wrist drop, fingers flexed at varying angles and thumb usually folded into the palm. His speech was slow but good, though he sometimes forgot what he was about to say. The pulse was normal. He

suffered much from epileptic fits. He was vacant in appearance, though sometimes he would become bright and cheerful, at others bad-tempered. His mental capacity was small, and though his observation was good and imitation and attention fair, his memory was very defective. He could not read or write, but would spell two or three words, add 2 and 2, and count to 50.

In December, 1883, the tumour was again examined and the following measurements taken :—

Right lobe, antero-posteriorly,  $5\frac{1}{4}$  in. ; transversely,  $3\frac{1}{4}$  in.  
 Left lobe, " " 7 in. ; "  $5\frac{1}{2}$  in.  
 Line of junction between the two lobes antero-posteriorly, 5 in.

The right hand was usually firmly closed, with the index and middle fingers flexed tightly over the thumb. It was only occasionally and with very great effort that the patient could manage to open out the fingers of his right hand ; he could do so with less effort by bringing his left hand into use. To all appearance he had no power whatever over the thumb of the right hand, though on two or three occasions, after long continued and very great effort, the thumb was seen to move from the palm of this hand. The right leg was now almost firmly flexed, but he was just able with effort to put the foot to the ground. The patellar reflex of this leg was but faintly marked. Epileptic fits still continued.

In January, 1884, the tumour was again examined, when the measurements were—

Right lobe, antero-posteriorly,  $4\frac{7}{8}$  in. ; transversely,  $2\frac{1}{2}$  in.  
 Left lobe, " " 7 in. ; "  $5\frac{1}{4}$  in.

The patient at this time was unable to put his foot to the ground. During the next twelve months he had repeated epileptic fits and he finally died exhausted after a series of them on January 30th, 1885.

The autopsy was made 24 hours after death. The body was fairly nourished, the right forearm contracted at right angles to the arm and the right leg drawn up. The swellings on the head, which formerly had a division between them, had now merged into one, and the depression between them no longer existed. The tumour measured across its widest part  $6\frac{1}{4}$  inches—the left, larger portion, measured  $6\frac{1}{4}$  inches antero-posteriorly, and the right, smaller part, 3 inches in the same direction.

The scalp was carefully dissected from the tumour, to

which it was very adherent, and on cutting into it it was found to be filled with reddish brown material of cheesy consistence. The tumour overlapped the calvaria, to which it was attached by a whitish substance of almost cartilaginous hardness, and anteriorly was connected with the brain through a hole in the skull, the size of a half-crown piece, but oval in shape. Depressions in the convex surface of the skull could be plainly seen, corresponding with the size, shape, and position of the tumour. The brain was put aside in spirit to preserve it for further examination, but unfortunately, owing to pressure of work, was neglected, so that I am unable to state the nature of the tumour. Although the case is thus incomplete, yet I have thought it sufficiently rare to place on record.

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*A Case of Mental Stupor: Recovery after Six Years' Duration.*

By R. D. HOTCHKIS, M.A., M.B., Assistant Physician,  
Royal Asylum, Gartnavel, Glasgow.

P. M., belonging to the City Parish, was admitted into the Glasgow Royal Asylum on 19th January, 1888, aged 38, married, an iron grinder.

*Past History.*—Unimportant. He has always been a sober man, of cheerful disposition, and fond of reading. He is a Roman Catholic, and regular in religious duties.

*Family History.*—No hereditary predisposition known.

*Present Illness.*—This began three weeks ago, and dates from the New Year holidays. During that time there were a great many religious meetings in connection with the Pope's jubilee, and he devoted his whole time to them. Thereafter he became dull and depressed, and would hardly speak except on religious subjects. He also neglected his home and his personal appearance, and began to spend money recklessly. At the end of the holidays he refused to go back to work, giving as his reason that God would provide for his family. If left undisturbed he would pray for hours at a time.

On admission he was depressed, and would not answer a single question. In appearance he is a slightly built man, in an apparently reduced condition. His heart and lungs are normal, as are also the reflexes.

About five days after admission he began to answer questions freely and fairly sensibly. His reason for not speaking before was that though he knew what was said to him he had not power to answer, though willing enough to do so.

February 26th, 1888.—For the last month he has been talking and acting rather foolishly. One night he got out of bed and

accused another patient of having stolen his watch 13 years ago. He said that God told him in a vision that this was the man that he is guided in his movements by the birds.

March 24th.—He stated to his wife that God had told him not to speak or eat any more.

March 31st.—He has not spoken for a week, nor has he taken any food. Fed by the stomach tube.

August 9th.—During the past four months he has been in bed in a condition of deep stupor; fed regularly with the stomach tube. To-day, however, he allowed himself to be fed with the spoon, and this was continued till May, 1889.

During these nine months he gradually lost flesh. There was always difficulty in feeding him with the spoon, and at last it became almost impossible, so that the stomach tube had to be resorted to again in May, 1889.

In July, 1889, massage was tried, but had to be given up owing to some synovitis of the knee joints. During this treatment he seemed somewhat brighter.

December, 1890.—During the past year and a half there has been no change in his condition, except that he is not quite so thin. He lies in bed with his head slightly raised and not resting on the pillow, due to tonic contraction of the muscles of the neck. His abdominal muscles are also somewhat rigid, while the muscles of the limbs are in a state of passive resistiveness. His expression is dull and vacant, in fact expressionless, and his eyelids generally are slightly open, his pupils being dilated. There is no marked coldness of the extremities. Both deep and superficial reflexes respond feebly; the fauces are insensitive, and there is no reflex action on the passage of the tube. Nothing produces an apparent impression on him. One day another patient struck him a violent blow on the head producing a deep cut, but he never moved or gave any sign of consciousness. His habits are cleanly, and he does not either wet or dirty himself. He was fed at first three times, but latterly only twice, daily on eggs, milk, biscuits, beef-tea, and porter. He is kept warm by suitable clothing.

December, 1891.—For the past few months there has been noticed slight reflex movements, *e.g.*, passage of the tube makes his jaws close, and tickling the soles of his feet causes his legs to be distinctly moved and drawn up a little. His arms sometimes move in a rhythmical fashion. Lately he was visited by two of his brothers, and they spoke in his presence of the struggles his wife was having to support his family. This caused his eyes to fill with tears, but he neither spoke nor attempted to speak.

April, 1892.—If food is put into his mouth he expels it. Other kinds of sensory stimulation, however, have not much effect on him, *e.g.*, strong ammonia held under his nose produces no effect; nitrite of amyl only causes marked flushing of the face, and increases the pulse rate.

November 3rd.—A few days ago it was noticed that he resisted the passage of the tube, and tried to expel it. Soon afterwards he allowed himself to be fed with the spoon. For the last few nights he has been restless, and talking quietly to himself and laughing. This morning when asked how he was he replied "Fine," and said he wished to put on his clothes. When asked how long it was since he had them on, he replied "Three or four thousand years."

November 23rd.—Spoon feeding continued. He answers questions in a very low voice, but does not make any attempt to get up, and everything still has to be done for him. He has been gaining weight.

December.—During this month he passed through a very severe attack of gastro-enteritis followed by erysipelas. He was very ill, and had to be fed by the rectum. His mental condition was then a little more clouded.

March, 1893.—During the past three months his condition has been variable. As a rule he is very resistive, and can hardly be spoonfed, but he is got up every day, and the interrupted current is applied regularly, with some slight beneficial effect, which, however, is temporary. A short time ago he had another attack of erysipelas. During this attack he brightened up considerably, and began to speak, expressing himself fairly sensibly. He complained about his food, and said it did not agree with him; which was quite true. His remedy, however, was to take none. This favourable state of mind lasted a few days, and as the erysipelatous rash faded he gradually relapsed.

October.—During the last six months there has been practically no change. He is spoonfed and got up every day, but hardly ever speaks. When his children visit him he takes no notice of them. His wife died some time ago, and that made no impression. He is pale and flabby.

December.—During the past few weeks he has gradually improved. First he did not require to be spoonfed. He also looked brighter, and talked in a very low voice. This was the beginning of final and permanent improvement. By the end of this month he could not only feed himself but also dress himself and walk about a little.

January 13th, 1894.—He continues to improve, and yesterday went out for the first time. He takes rather a gloomy view of his case, and says he does not think he will get well in Gartnavel, as it is not religious enough.

February 28th.—He is now much stronger physically, and is quite cheerful, readily entering into conversation and originating remarks himself.

April 28th.—Left to-day recovered. He has not gained much in weight, but seems in good average health and condition.

Mentally he has completely recovered, though there remain what are probably perverted recollections of his mental states

during his illness. His intellect is clear and unclouded, and he talks rationally and sensibly. His memory is clear about the events in his life before his illness. He has sustained no loss of natural affection, but is as fond of his children as ever. He takes an interest in political matters, and expresses surprise at the changes that have taken place during his illness.

The first point about this case is the *form of mental stupor* under which the patient laboured. He has now a confused recollection of his immediate surroundings during his illness. He remembers the doctors and some of the attendants. His mind was not a complete blank, but there was a dim consciousness. These facts point to the case having been one of melancholia attonita, melancholic stupor; not acute primary dementia, better called anergic stupor.

There was a delusion expressed in the explanation of his illness which he gave shortly after his recovery. He thought that he had offended God, and in consequence a great horror came over him, which paralysed his mental faculties and took away his power of speaking, eating, and moving. He says that while in this state he often wished to get up but couldn't; that he felt sorry for himself, and wondered how long it was going to last, and how it would all end, and what would become of his family. He wished that he were able to support them.

It is difficult to know what value to attach to this explanation. That it cannot be dismissed as a pure fabrication is evident, but at the same time there are discrepancies in some of his statements as compared with actual facts. His memory is distorted, and he unconsciously adds a little.

There are other points in favour of this case being one of melancholic stupor; his muscular condition was passively resistive. His habits were cleanly, and there was no difficulty in keeping him clean if he were regularly raised.

As against this diagnosis, however, it must be noted that he always slept well, and his age was much above the average.

It will be observed that he did not begin to improve permanently till about nine or ten months after the second attack of erysipelas, so it could not have been a factor in his recovery.

*Pathology.*—Dr. Wiglesworth in the *Journal of Mental Science* for October, 1883, published a paper on certain cases of mental stupor, and came to the conclusion that the

pathological basis is a primary inflammatory affection of nerve cells, best marked in the so-called motor cells, and possibly originating in them; but also showing a decided tendency to spread beyond their area. He states that the result of such inflammatory affection involving a multitude of nerve cells and plexuses would be to produce in the mind of the person affected a multitude of vague and incoherent thoughts over which he would have no control, and that he would be absorbed in the contemplation of his thoughts and in proportion to such absorption would be insensible to external stimuli. Now if this were so in the case above detailed, the inflammatory affection must have lasted for nearly six years, at any rate for four or five years, as the symptoms of deep stupor were well marked during all that time. But the patient recovered, and therefore the inflammatory process must have ended in resolution.

It would be difficult to find an analogous case to this in which inflammation lasted for some years in an organ and ended ultimately in resolution; the organ returning to its natural condition and performing its functions as before. We may have inflammation in the kidneys lasting for years, but destruction of the kidney cells is as a rule in proportion to the duration of the inflammation, and there is never recovery nor can there be. Of course it is the interstitial form of nephritis that is the more chronic, but the modern view is that the parenchymatous constitutes a primary stage, in some cases at least, to the interstitial form. At any rate in the kidney, after a chronic inflammation, the cells become disorganised and ultimately disappear, leaving scar tissue in their stead. But if this happens in the kidney why should it not happen in the brain? Why after an affection of some years' duration should the cells of the cortex not become similarly disorganised? If this were so, and if the patient recovered, then the function of the cells so destroyed would have to be performed by other cells which had been unaffected. And, further, at the end of the patient's life, if the brain were examined, there would be microscopic changes marking the former seat of disease. I know of no observations in support of this view.

#### *Discussion.*

The patient having been submitted to examination,

Dr. MACPHERSON—I have not seen Dr. Wiglesworth's paper, but, with great deference, I am very much inclined to doubt the possibility of anything like an extensive inflammation of the cells followed by recovery. I have seen microscopic slides from similar cases, in which the cortical cells were perfectly

healthy, and I remember a case of acute mania in which the cortical cells were completely atrophied. I should be extremely doubtful of any possibility of recovery in such a case. I ask Dr. Hotchkis, in connection with Dr. Robertson's remarks on Dr. Edgerley's paper, whether he made a tracing of the pulse in this case. I am sorry to differ from Dr. Robertson's opinion, but it seems to me that the bulk of evidence is on the side of having a high tension in melancholic stupor. Dr. Whitwell has been so patient as to get a continuous tracing of the pulse during the time that the patient was passing from a stuporous condition into a lucid interval, where the pulse is shown to pass from a state of very high tension to a state of rebound. I think that the papers read by Dr. Hotchkis and Dr. Edgerley are of the greatest benefit to us, and beg to thank them heartily.

Dr. HOTCHKIS—With regard to Dr. Macpherson's inquiry, I have to say that there was no pulse tracing taken. His pulse was slow, between 50 and 60, and not very strong; but there was no high tension, in fact nothing at all unusual.

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*A Case of Diabetic Insanity: Immediate Recovery on Disappearance of Sugar.* By KEITH CAMPBELL, M.B., Assistant Medical Officer, Perth District Asylum.

I. C. was admitted into the Perth District Asylum on July 23rd, 1895, under the care of Dr. George M. Robertson.

She was 68 years of age, with the history that for many years she had been eccentric, but that during the week previous to her admission she had given evidence of delusions and a melancholic tendency. She had delusions of suspicion, of persecution, and also of a hypochondriacal nature. She also had hallucinations of hearing.

*Family History.*—The facts of importance were—(1) that a sister had died insane; (2) that several members of the family had exhibited a strong strain of eccentricity; (3) that there was a distinct tendency to rheumatic gout in the family; (4) that a niece had died of diabetes in girlhood.

*Personal History.*—At the age of 20 years she had scarlet fever, and subsequently as the result of a chill she had nephritis, and for three months was confined to bed with severe dropsy. Since then she has been crotchety in the extreme, and very eccentric.

I am indebted to Dr. R. W. Irvine, of Pitlochrie, for the information that he had occasion to test her urine at intervals, and found it contained albumen, with a deposit of phosphates. He had not examined it for six years before admission, and he never found sugar.

She has had chronic rheumatoid arthritis for many years, and is to a certain extent crippled by it.

*On admission.—Physical Condition.*—She was exceedingly stout, and her muscles were in a very flabby condition. As regards voluntary action she was apparently perfectly helpless. She could not stand unless supported, and at once collapsed if the support was withdrawn. In bed, she lay on her back like a log, moving neither hand nor foot. She understood what was said to her, and on one or two occasions she was induced to move her legs a little. She was once also persuaded to walk a few steps. There was no

loss of sensation, although this was somewhat delayed. The knee-jerks were absent; the superficial reflexes normal. No gross nervous lesion could be determined, but she passed urine in bed, and on several occasions her motions. These symptoms were directly traceable to her delusions. On examination the urine was found to be neutral in reaction; sp. gr. 1022, with no albumen. It was not tested for sugar. During this time her appetite was poor and her digestion feeble. Her conjunctiva was injected and icteric, her tongue foul and tremulous, and her bowels inclined to be constipated.

*Mental Condition.*—She laboured under the following delusions:—That she was dead; that she could not walk; that she could not eat; that her tongue was cut out; that she had no body; that her head was cut off; that she was going to be killed. She had hallucinations of seeing but none of hearing. Under the delusion that she was dead she refused to take her food, and on July 24th she had to be fed with the oesophageal tube, resisting violently. She had to be fed with the tube six times in all, the last occasion being on August 4th. She spoke very little, and then only to insist on her delusions, and no amount of argument could shake her belief in them. For example, if asked to do anything she would say, "I can't, I'm dead;" and if asked how any dead person could speak, she would say that she was quite dead and that her tongue was cut out, only her voice being left.

She was exceedingly quiet, lying as still as death, and judging by her looks she seemed to have no power of voluntary motion. She resisted, however, when the nurse gave her food, or when her position in bed was being changed, but on being left alone she immediately relapsed into a state of apparent helplessness. She continued in this state—absolutely governed by her delusions—for three weeks without any change.

*Course of the Case.*—On August 16th the nurse in charge reported that she complained greatly of thirst, and in consequence of this her urine was again examined. The sp. gr. was 1030, and there was a marked reduction of Fehling's solution. There had been no increase in the quantity of urine, and the appetite was by no means excessive. She was then put on a strict diabetic dietary, and next day there was a great diminution in the amount of sugar; but she still complained of thirst. The urine for 24 hours measured approximately  $\frac{3}{4}$  xxxviii., but the difficulty of managing the patient rendered it impossible to ascertain the quantity with exactness.

August 19th.—Patient was sick; conjunctivæ deeply tinged; tongue coated; breath foul. A chalagogue purge was given. The special diet was continued. The urine still contained sugar.

August 21st.—There was not a trace of sugar in the urine, and in mind the patient was a different woman. She no longer lay in

bed motionless and sullen, but became bright, cheerful, and ready to engage in conversation. She took her food well, was perfectly tidy in her habits, and wished to get up. She admitted that her fancies about being dead were wrong. She said that she really thought she was dead, and that her tongue was cut out, but that it was "nonsense."

For the next month she was kept on a strict diabetic dietary, and her urine was examined at intervals without any evidence of sugar or albumen being found. The daily amount was never excessive.

During this time also she gained in weight, from 11st. on 1st Aug. to 12st. 1lb. on 4th Sept.

She remained quite well in mind and able to be up daily; free from all delusions, as above noted.

The dietary was gradually relaxed, the urine at the same time being periodically examined, and eventually she was put on ordinary diet.

October 16th.—Patient had a slight relapse. She did not sleep well for a night or two, was rather excited, exalted in her ideas and irritable. She had some vague ideas of persecution. No sugar was found in the urine.

October 21st.—Patient quiet and cheerful again. She continued so till December 2nd.

December 9th.—For a week previous to this date the nurse had noticed that she was depressed, irritable, and drowsy. The mental state did not amount to technical insanity. She was simply unreasonable, crotchety, and full of objections. The urine was examined, and the sp. gr. was 1024—amount not excessive, about seven grains of sugar to the ounce. She was put on a diabetic dietary.

December 11th.—She was much quieter, and less irritable. No sugar.

December 25th.—She had a full dietary to-day, and as a result there was sugar in the evening urine. Next day the special dietary was resumed, and she again recovered mentally, while the urine remained free from sugar.

She is now, on March 18th, perfectly recovered.

*Notes on the Case.*—The diabetes of this case is probably hepatogenous in origin, and the appearance of the woman—elderly, stout, with distinct symptoms of rheumatic gout, subject to biliary disturbance, with a florid complexion and moist skin, favours this view. The fact that the exclusion of sugar-forming substances from the food stops the excretion of sugar, and that the sugar is increased by neglect of such precautions, are also confirmatory. As regards mental symptoms, the outstanding facts are:—Their marked melan-

cholic nature, the fixedness and overmastering strength of the delusions, and the fact that they were mainly hypochondriacal.

As in other cases reported there was also an extreme and sullen obstinacy, and a stubborn refusal of food.

The notable feature, however, is the synchronous disappearance of melancholic symptoms, and of sugar from the urine. The mental recovery when the sugar disappeared was so sudden and so complete that it was evidently more than a coincidence; and another fact that strengthened this view of a relationship between the phenomena was a change in the patient's mental state for some days before sugar was again found in the urine (Dec. 9th).

Her delusions had not returned, but she was depressed, irritable, crotchety, and abusive. These symptoms have been observed in many cases of diabetes, and have been described as one of the abnormal mental states not amounting to actual insanity which appear in diabetes (*Journ. Ment. Science*, Vol. xlii., p. 20). On the sugar-forming constituents of the food being removed the sugar disappeared from the urine, the irritability passed off, and the patient again resumed her cheerful state of mind.

There seems undoubtedly to have been a very close connection between the diabetes and the mental symptoms, and from the changes in these symptoms following on changes in diet it would seem as if the diabetes stood to the insanity in the relationship of cause to effect. The remarkable similarity in the character of the main symptoms in this and other recorded cases of insanity in which sugar has been detected in the urine of the patient (Clouston, *Mental Diseases*, p. 600) is a noteworthy fact from a clinical point of view, and confirms the belief in a distinct type of diabetic insanity, of a melancholic variety, with delusions of a hypochondriacal nature, and ideas of suspicion and persecution.

These delusions are possibly due to misinterpretation of the lethargic and wearied sensations actually experienced in diabetes mellitus.

*Note on a Case of General Paralysis with Marked Sensory Symptoms.* By WILLIAM C. SULLIVAN, M.B., Stewart Scholar in Mental Disease, R.U.I., late Clinical Assistant, Richmond Asylum, Dublin.

P. T., aged 36 years, army pensioner. History of syphilis, contracted ten years ago, while serving in India; also of sexual excess. Married, has two children, both healthy. Symptoms date back two years, when patient began to suffer from convulsions, treated as idiopathic epilepsy. Admitted to the Richmond Asylum in February, 1892.

He then presented some degree of tongue tremor, slight flattening of face, articulatory blurring, and very exaggerated patellar reflex; pupillary reactions and fundus oculi were normal, no disorders of common or special sensibility. Mentally there was a state of mild exaltation, not crystallised in any delusion.

Patient had no mental or physical change from date of admission to April, 1892, when he had a number of attacks of *petit mal*, preceded on each occasion by darting pains in the lower extremities, and followed by a temporary accentuation of the physical signs. With the onset of these "cramps," as the patient termed them, his optimism disappeared, and he exhibited a tendency to persecutory ideas, attributing his sufferings to drugs in his food, etc. When the attack passed off, the exaltation returned and was more marked, patient declaring that God had come to him, touched him and cured him. In May a more severe congestive attack was succeeded by temporary aphasia and right brachial paresis, while the mental state was very depressed.

A remission of mental and physical symptoms followed this, lasting until September, when another similar attack occurred. In none of these attacks could any sensory disturbances be detected except the darting pains before the onset.

Towards the end of November patient had a very severe congestive seizure, preceded by intense darting pains, and leaving a condition of left hemi-paresis. With this was associated a mental state of panic terror; with his sound hand patient grasped his paretic arm, shook it, gazed at it with an expression of horror and fear, shrieking, "Take it away, take it away; the big serpent is biting me!" Furor was too intense to allow observation of sensory condition. This excitement subsided after some hours, and paretic symptoms passed off, leaving patient very dull and confused; he stated that a big serpent had been placed upon him, and had bitten him in the left side, but that God had saved him because of his holiness. Sensibility to pain and touch could now be made out as distinctly lessened on the left side.

No further symptoms appeared until December 9th, when there was a revival of the furor with the former delusion, but without

motor paralysis. On December 25th another congestive attack was followed by left hemiplegia and hemianæsthesia; patient was happy, fondled his paralysed and anaesthetic arm, speaking of it as his "little son, the fine little child that God had brought to him."

In a day or two, localised motor and sensory paralysis passed off, but dementia became profound. Patient died of cardiac paralysis on January 9th, 1893.

*Remarks.*—It will be observed that throughout this case sensory symptoms were more prominent than they usually are in paretic dementia; and further that the influence of these abnormal sensory conditions on the patient's emotional state and on the contents of his delusions was particularly clear. Each change from exaltation to depression, from delirious conceptions of a gay to those of a sad character, appeared to coincide with and be caused by the occurrence of painful sensations referred to the periphery; and the cessation of these sensations or their replacement by sensations of a pleasurable tone was constantly accompanied by a return of the sense of *bien-être* with grandiose delusions.

I have thought this case worth recording as illustrating so clearly the important rôle which the condition of sensibility plays in general paralysis in determining the character of the transient psychic symptoms which colour the dementia in this disease.

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#### OCCASIONAL NOTES OF THE QUARTER.

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##### *The New Journal.*

The rumour that a new contemporary is to appear in connection with the Association of Asylum Workers is not as yet confirmed; indeed, we are informed that the matter is still in abeyance.

The above-named Society now numbers so many members, and is so largely supported by our own associates, that whenever the new birth may occur we may be assured that it will aim, not only at the advancement of the interests of asylum workers, but also at the development of asylum work.

In this assurance we shall give a hearty welcome to the new journal whenever it may appear.

## Non-Specialist Asylum Appointments.

The discussion on this subject by the South-Western Divisional Meeting, and the resolution passed, prove that the specialty is alive to the evils that may arise from the appointing of inexperienced medical men to the control of asylums. The danger of such appointments being made does not arise only from the ignorance, personal interests, or parsimony of local authorities, but may come from other branches of our own profession. In "Notes and News," under the heading of "Insanity Law," we quote a recommendation by the *Medical Record* (U.S.A.) that the medical representative on the Lunacy Commission for New York State should be a "neurologist"!

The immediate result of such appointments will be, that the highly qualified medical men who are now filling junior posts will retire from the specialty, and the advance in scientific study and treatment of the insane will be retarded.

The Commissioners in Lunacy must appreciate the importance of such a state of things, and would probably welcome and assist a representation of the evil and injustice involved to the Home Secretary and the Lord Chancellor.

Local authorities will always be liable to be influenced as already suggested, unless they are definitely controlled by superior authority. Appeal to their judgment ensures no permanent conviction. Committees are said to have no conscience, and when triennially elected they certainly have short memory.

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## Colonial Branches.

The very important and interesting question of the establishment of Colonial branches of this Association will probably come before its members for decision at an early date.

The suggestion arises from the already established nursing examination at the Cape, and from an application for the extension of this to New Zealand.

The enlargement of our work in this manner renders it desirable that some representative of the Association should be appointed in each Colony; and it is probable that the nomination of such a representative would best be arrived at with the assistance of the members of the Association in

each Colony. To do this would practically necessitate the establishment of branches.

Colonial branches, if thus instituted, would not probably often result in meetings, owing to the long distances that separate the members. They might, however, develop a system of criticism of papers sent by post, or in other ways keep up an active interest in their own work and in that of the Association.

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#### *National Society for the Employment of Epileptics.\**

This Society does not appear to receive the charitable support that it needs and deserves. In a recent appeal for assistance it was pointed out how greatly England was lagging behind other countries in this respect. In Germany, for instance, there are no less than a dozen epileptic colonies, of which Bielefeld, the chief, has an income of thirty thousand pounds, chiefly derived from charity.

In America several colonies already exist, while in Pennsylvania and New York State new colonies are being formed on a most liberal basis. In the first-named instance the State provides the land and one donor gives 50,000 dollars.

In the whole range of preventive medicine there is probably no better object for charitable effort than this. Epileptics constitute eight per cent. of the admissions to our asylums, and there can be little doubt that this number would be reduced by a considerable extension of the colony system; epileptics in our dense population being at a greater disadvantage than in the countries quoted, and needing help more.

The applications for admittance to the existing colony are greatly in excess of its resources, and it is suggested that several others should be established under local management in various parts of the country.

We trust our readers will therefore not neglect to use the knowledge, influence and opportunities which they possess to advance the establishment and development of such colonies in our own country.

\* The central address of the Society is at 12, Buckingham Street, Strand.

*The Austrian Curatel Procedure.*

In Austria the Curatel law has long applied, not only to the insane, but also to habitual drunkards and others deficient in self-control. This law provides for the appointment of a Curator, under whose control the patient is put when discharged from an asylum, etc. The Curatee can apply from time to time to the Court for the annulling of the Curatel, and the decision rests on the evidence of State physicians and other testimony. In some instances repeated applications have been made before the discharge from Curatorship has been granted.

One result is, as pointed out by Professor Schlangenhausen,\* that in Lower Austria there is great over-crowding in the asylums from the admission of forty per cent. of habitual drunkards. These, as elsewhere, are found to exert a deleterious effect on the ordinary insane, and the Austrian Government therefore proposes to construct for drunkards special asylums to be under State control.

The appointment of Curators in certain cases of insanity, as well as in states of loss of self-control, would certainly constitute a valuable supplement, not only to the treatment of these conditions, but also in safeguarding the community from those who are dangerous.

A provision of this kind might certainly be made with advantage in the forthcoming legislation by Parliament in regard to habitual drunkards, as it probably will be in the similar legislation for compulsory curative procedure which is under the consideration of the Reichsrath. Such an addition to legal control might be made without the sweeping re-modelling of our lunacy system which some of our lunacy reformers would advocate.

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*Attempted Attendants' Trades Union.*

The attempt to form a trades union of attendants in Ireland has been quashed with the firmness and promptitude that the occasion demanded. A trades union is as impossible in an asylum as in the army or navy. Discipline would be impossible, and no confidence could be placed on a staff which would at any moment be paralysed by the action of an irre-

\* *Wiener Medicinische Press*, Fl. 9, 1896.

sponsible, and often tyrannously autoocratic trades union committee. The Report of the last meeting of the Irish Division in "Notes and News" forms a permanent record (if any were needed) of the right method of dealing with such attempts at insubordination.

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### *Pensions and Gratuities.*

The present time would seem to be most opportune to press the claims of those engaged in the treatment of the insane for assured pensions and for gratuities under special or exceptional circumstances.

The discussion of the pension question some years back revealed very opposing views among Asylum Medical Superintendents. The last few years, however, have brought a considerable amount of experience on this question, and it would be desirable again to discuss it, since there is a possibility that greater unanimity may now be found to prevail.

The gratuities question is one on which there has been an unanimous expression of opinion, and there is probably a good opportunity of making the granting of these legal in the Lunacy Amendment Bill of the present Session if the members of this Association individually and collectively bring their influence into play in the proper quarters.

The grievous injury of a gardener attendant at the West Green Asylum recently reported is at once an illustration of the dangers of the occupation and of the necessity for power to grant gratuities or allowances to the widows and children of those who lose their lives in the performance of their duty.

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### *Increase of Lunacy.*

The increase of lunacy has again been made the subject of question in the House of Commons by a Member who has interested himself on the point, and has expressed very strong opinions thereon. He proposes an International Commission on the subject. Such a Commission might collect interesting and valuable information, but we doubt if it would bring us any nearer a definite conclusion from existing statistics than has been reached by the Commissioners for the three divisions of the country in their more recent reports.

*Crime and Insanity.*

The Report of the Departmental Committee on Prisons, the chief recommendations of which—so far as they affect the subject of insanity in prisons—we reproduce under the heading “Notes and News,” contains much of interest to alienists, by whom it will be welcomed as evidence of reform and progress. The Report opens up a prospect of co-operation between asylum and prison workers, which cannot but make for a better understanding of the sources and relationships of crime and insanity, and promote our efforts to lessen the sum of unhappiness caused by the heedless propagation of these great degenerations. Too long, indeed, have the alienist and the criminologist worked apart, and a distinction, we venture to assert, quite unnatural has been drawn between their spheres of labour. We should be curious to learn how many instances could be adduced of co-operation between asylum and gaol medical officers, in those localities in which the asylum and the prison are contiguous; to what extent the medical officers of the one institution have taken advantage of the opportunities which offered to familiarise themselves with the cases to be found in the other. There may possibly be justice in the reproach that both our prison colleagues and ourselves have been remiss in not bringing before the notice of the proper authorities, with adequate persistence and force, the need for taking a common basis of study, and for associated labour. The desirability of keeping distinct institutions for dealing with insanity and crime might even be questioned by some. Wholly separate institutions for the study of the different abnormal and degenerative states of any given bodily organ, other than the brain, would assuredly be considered as unnecessary.

Turning to the recommendations of the Report, we early note one which strikes us as eminently desirable, namely, “That candidates for medical appointments in prisons should be required to show that they have given special attention to lunacy.” As is truly observed, “The detection of disease in its earliest stages taxes the skill of the practitioner to its fullest extent, and in mental diseases this is especially the case. Here medical men of great skill and experience, but without any special training in this department of their art, are undoubtedly at a disadvantage.” The Report goes on to allude to the Belgian system, by which experts are retained for the detection of insanity in criminals; and suggests that some step of the kind might be taken, with a view of

nspecting convicts during their period of isolation. We are certainly of opinion that if the recommendations on this point are carried out much will have been done to prevent the punishment of the irresponsible. In Appendix III. of the Minutes of Evidence we find a Table, supplied by the Medical Inspector of Local Prisons, showing that, in the year ending March, 1889, the number of sentenced prisoners found insane upon reception amounted to 93; and he proceeds to observe that "it is evident from these figures that insane and irresponsible persons have been dealt with as sane and responsible; that is to say, they have been sent to prison under sentence." Although in London the committal of insane persons to prison is largely prevented by using Holloway Prison as a place in which accused persons of doubtful sanity can be observed and tested, it can scarcely be doubted that in the provinces instances of such committal are occurring not infrequently. Even in Holloway the facilities for giving thorough attention to individual cases, whereby alone just conclusions as to the mental state can be formed, would appear to be inadequate, since we find the Report (based in this respect, as in all others, upon the evidence of expert witnesses) advocating that "the medical staff in Holloway and other prisons similarly circumstanced should be strengthened."

Whilst referring to the subject of the early detection of insanity in prisoners, we offer the suggestion that it would be advantageous to consider the propriety of reforming the process by which the Treasury is informed concerning the mental condition of a prisoner. At present (we refer to the usual procedure) a report is furnished by the Superintendent of the local asylum. We think that the results would be more uniformly satisfactory if in all cases such prisoners were examined in addition by a consultant-expert, preferably one retained by the Treasury for that purpose. If, finally, we could be spared the primitive course by which a local practitioner is permitted to present his opinion in court, upon behalf of the defence, in respect of a questionable case of insanity, in opposition to that of the Superintendent of the Asylum—a procedure by no means instructive or dignified—an appreciable saving would be effected in the time of the court, and the way cleared for the introduction of more advanced methods.

Another recommendation to which we would refer is that the various members of the prison staff should go "through a course of systematic and scientific instruction. Lectures

should be given by experts in criminal anthropology," etc. We have no sympathy with those connected with asylums and prisons in this country who deride the work of Lombroso and his pupils. Even though we are unable to agree with much that is taught by this school, we accept such investigations as being in the proper spirit, and should deem it evidence of progress if the same lines of inquiry were systematically followed in this country. Prison officials, like their asylum *confrères*, are in danger of losing the light of research amidst the murky details of administrative duties. We are glad to note the Report recommending that prison officials should be instructed in their work "over and above the formal discharge of routine duties."

Other recommendations refer to the treatment of the weak-minded class, of habitual criminals, and habitual drunkards. Separate treatment is recommended for all these. With reference to the first-named, we find the somewhat naïve remark, that it is "a question whether the epileptic and obviously weak-minded class should be sent to prison at all." We hasten, however, to add that the humane and enlightened tone of the Report leaves no room for doubt as to the manner in which, in the opinion of the committee, this question should be solved. In the case of habitual drunkards, the recommendation of the Committee on Inebriates, that magistrates should have power to commit for lengthened periods, is confirmed.

The Report closes with a memorandum on Insanity in Prisons by Dr. J. H. Bridges, a member of the committee. He has no difficulty in rebutting the sensational statements made by a writer in the *Fortnightly Review* for April, 1894, and by others, to the effect that the existing prison system promotes insanity.\* In the vast majority of cases of insanity recorded in local prisons during a given year the disorder was noted on admission or within one month of admission; and the probability is that careful inquiry, with due knowledge of the history, would have shown the existence of the seeds of the disease in several of the few cases remaining. The fact that the insanity is thus early detected, pointing clearly, as it does, to the existence of the malady prior to imprisonment in a large number of the cases, is an obvious argument for the early examination of accused persons by specially trained physicians, with a view to determining the question of responsibility prior to committal to gaol.

\* See also Dr. Baker's article on "Insanity in English Local Prisons," *Journal of Mental Science*, April, 1896.

## PART II.—REVIEWS.

*The Forty-fourth Report of the Inspectors of Lunatics on the District Criminal and Private Lunatic Asylums in Ireland.*  
1895. Thom and Co., Dublin. Octavo; pp. 198.

The Inspectors' Blue Book for the year 1894 begins with the usual summary of the number and distribution of the insane in establishments :

	On 1st January, 1894.			On 1st January, 1895.		
	Males.	Females.	Total.	Males.	Females.	Total.
In District Asylums ... ... ...	6,818	5,616	12,434	7,002	5,769	12,771
,, Central Asylum, Dundrum ... ...	130	26	156	140	21	161
,, Private Asylums ... ... ...	281	361	642	293	353	646
,, Workhouses ... ... ...	1,718	2,326	4,044	1,686	2,390	4,078
,, Prisons ... ... ...	—	—	—	—	1	1
	8,947	8,329	17,276	9,121	8,534	17,655

The Inspectors are again careful to point out that the insane in establishments do not include the insane in private dwellings or wandering at large.

" This summary shows an increase of the insane under care in all the different institutions receiving lunatics, viz., an increase of 337 in District Asylums, of 5 in the Criminal Asylum, of 4 in Private Licensed Houses, and of 32 in Workhouses.

" Unfortunately the falling off which occurred last year in the growing increase of the registered insane has not been maintained, the increase at the end of the past year being above that of the year before (which was only 152), and above the average increase for the past ten years, which was 330.

" Table I. shows the number and distribution of the insane under care in Ireland on the 31st December of each year from 1880 to 1894. In that time the numbers have increased from 12,982 to 17,655, an increase of 4,673."

During the interval in question the population of the country as estimated in the middle of each year had sunk from 5,202,648 in 1880 to 4,600,599 in 1894.

The Inspectors have thought it necessary to quote at full length the Conclusions which they presented in their last previous Blue Book, as the result of their inquiry into the increased number of the insane registered in Ireland. They seem to maintain that the increase is mainly apparent, but partly real. Their present views are not identical with those which they expressed at an earlier date (a fact which Mr. Corbett, M.P., has recently touched on with some severity in the *Fortnightly Review*), and are opposed to the general trend of well-informed opinion on this point. We are therefore hardly inclined to accept their arguments as conclusive. They state that the main factors which contribute to the development of occurring insanity in this country may be classed as:—

- (a.) *Heredity.*
- (b.) *Consanguineous marriages* among those having any tendency to nervous disease.
- (c.) *The innutritious dietary* of the poorer population tending to produce anaemia and constitutional weakness, which favour the development of scrofulous and neurotic disease.
- (d.) *The immoderate use of certain nervous stimulants.*
- (e.) *The acute agricultural depression and dislocation* so widely experienced in recent years.

Now we do not see that any of these causes, except perhaps the last, has any real bearing on the question at issue. If heredity were a direct cause of the *increase* of insanity it must be one which in itself is increasing at such an appalling rate of progression as would threaten the early extinction of humanity (at least of sane humanity) altogether. The statistics of the western islands, notably Tory, go to disprove the efficacy in the production of insanity of consanguineous marriages, which are probably rarer in Ireland than in any other country. The dietary of the Irish peasants has vastly improved since the old days when the staple food of the country was the potato. With regard to alcohol, the only nervous stimulant the abuse of which is an undisputed cause of insanity, the habits of the people have improved and are improving. Of the Ireland of olden times it was said, "In Ireland no man visits where he cannot drink." Happily that is certainly not now true.

With reference to the very interesting question of agricultural depression the information collected is too vague to enable any very definite conclusion to be arrived at.

The following table is given, than which, say the Inspectors, "nothing, in our opinion, would point more forcibly to the effects of accumulation."

PROPORTIONAL AGE DISTRIBUTION of the total Insane at the Census Periods, 1871, 1881, and 1891.

—	1871.	1881.	1891.
All ages ... ... ... ...	1,000	1,000	1,000
0-15 years ... ... ... ...	72	52	36
15-25 years ... ... ... ...	158	134	118
25-45 years ... ... ... ...	448	450	426
45- 5 years ... ... ... ...	258	285	334
65 years and upwards ... ...	64	79	86

*District Asylums.*

The admissions to District Asylums numbered 3,229 : being 2,448 new admissions and 781 readmissions. One thousand three hundred and nine patients were discharged recovered, 465 not recovered. The proportion of recoveries to admissions was 40.5 per cent. The deaths numbered 1,108, being in a proportion of 8.8 per cent. on the daily average number resident. "In 287 of these cases post-mortem examinations were held. This is a considerable increase on past years, and as the medical staff in these institutions is strengthened, we feel confident that such examinations, so necessary for the safety of the insane, and so important for the furtherance of scientific knowledge, will every year become more frequent."

It is very much to be regretted, in the interests of the insane as well as in the interests of medicine, that the Inspectors were not able to press upon the Privy Council the necessity for providing in the new rules for the performance of autopsies as portion of the duty of the medical staff. On the contrary in the new rules post-mortem examinations are only referred to in connection with burials, and are associated with anatomical examinations, apparently with the design of rendering autopsies odious, and even of penalising the performance of them unless in the case of unclaimed bodies. It is, perhaps, scarcely to be wondered at that in the majority of the District Asylums post-mortem examinations appear to

have been few, while in no less than nine none were performed during the year.

Five suicides are recorded. Two patients cut their throats with dinner knives. One strangled herself with a roller towel; one precipitated herself from a window; another hung himself from a ventilator in a single room. One patient died from impaction of food in the gullet. A patient at the Richmond Asylum, Dublin, died from violence, having sustained "during the night" a fracture of the sternum and several ribs, with rupture of the liver. An attendant, who was alleged to have inflicted the injuries, was prosecuted on a capital charge, but the jury disagreed.

#### *Accommodation.*

It would appear that the crying evil of overcrowding has at last led to some serious steps being taken in the various public asylums. "Under existing legislation on the subject the duty of providing adequate and suitable accommodation for the treatment of the insane poor is exclusively vested in the Board of Control. . . . As a result of the Board's exertions, extensive additions have been made, or are in progress, or in immediate contemplation in connection with every District Asylum with the single exception of Ennis." "Immediate contemplation" unfortunately in Ireland seems not to be a very rapid process. The expense of extensive buildings for the insane is heavy in a poor country, and, although the Inspectors courteously compliment the local authorities on their cordial co-operation, we fear from the statements of Asylum Governors, which appear from time to time in the local papers, that the central authority somehow fails to always commend its views or its methods to local opinion. At Armagh, Ballinasloe, Carlow, Clonmel, Cork, Downpatrick, Enniscorthy, Killarney, Kilkenny, Letterkenny, Limerick, Maryborough, Monaghan, Mullingar, Sligo, and Waterford additional accommodation is being provided, and the older buildings appear to be undergoing a complete remodelling. The plans at Armagh, Ballinasloe, and Downpatrick appear to include special hospital accommodation. We hope "immediate contemplation" may be given to the necessity for making suitable hospital accommodation everywhere. If there is one thing more than another which modern medical experience shows, it is that provision which is good enough for healthy chronic cases may be wholly unsuited for the sick and for acute cases. Until this is

thoroughly understood and acted upon the medical treatment of the insane will be backward and defective.

The new asylum for the County of Antrim has been begun. The second asylum for the Dublin District at Portrane has apparently got as far as the embryo stage; plans have been prepared; tenders are expected.

At Belfast City, "the Purdysburn estate, some few miles outside the city, has been purchased as the site for the new District Asylum. It contains about 300 acres, and it is proposed to at once convert the manor house already existing on the site into accommodation for 76 chronic working patients who will be employed on the farm, thus relieving the overcrowding in the existing asylum."

At Londonderry, "The decision of the Governors to abandon the present site of the Londonderry Asylum has met with the full approval of the Board of Control, and during the past year a site has been selected, called Gransha, at some little distance from the city on the other side of the river. At present negotiations are in progress with a view of obtaining a water supply from the Corporation of Londonderry City, and if these can be satisfactorily concluded, it is to be hoped no further cause of delay in obtaining tenders for the erection of the buildings will be experienced."

It is difficult to judge from the report before us what is being done at the Richmond Asylum.

We are told that "during the year various temporary buildings have been erected at the Richmond District Asylum, so as to provide sufficient space for the accommodation of all the patients resident in the institution. This work was carried out by building blocks, the walls of which consist of two layers of pitch pine with felt between. The roofs are constructed of corrugated iron over a layer of felt. A kitchen, scullery, and stores were also erected at the main building."

The improvements indicated in the last sentence must certainly have been acceptable, but it would be interesting to know how the main building got on heretofore without a kitchen.

The present report is a little scanty in detail, but in the forty-second Report of the Inspectors it is said of the Richmond Asylum—"The number of patients now almost reaches 1,500, whereas the asylum only accommodates about 1,100." Is it meant, then, that the new provision which satisfies the

Inspectors as rendering the asylum sufficient for all the patients resident in the institution is adequate for 400 patients? If so, it is surely much to be regretted that more detail has not been given with reference to this enormous provision of "temporary accommodation," as large as the total of most Borough Asylums when first erected.\*

#### *Insanitary Conditions.*

Epidemics of fever from year to year at Castlebar Asylum are supposed to be due to polluted water. At Enniscorthy a defective water supply is also a source of inconvenience and danger. At Maryborough the same condition, combined with bad drainage, is credited with the production of epidemics of dysentery and typhoid fever. An epidemic of typhus fever at Killarney, which affected five patients, killing one, was traced to an external source. Erysipelas was introduced by a patient into Mullingar Asylum, and affected twelve of the inmates, killing four. At the same asylum a case of enteric fever occurred. "This fever was caused by an escape of sewage from a defective soil pipe." It is well to be definite sometimes, but will leakage from a defective soil pipe alone cause typhoid fever? "The sanitary condition of the Richmond Asylum has continued to be a source of anxiety to all connected with its management. Outbreaks of dysentery and diarrhoea have been prevalent, and in the autumn some cases of small-pox occurred." It is not mentioned how the small-pox was introduced. The singular epidemic of bëri-bëri which visited that institution is thus described:—

In the early summer an epidemic broke out, resembling in its symptoms an Eastern disease known as bëri-bëri or "the bad sickness of Ceylon." The disease appeared both in its acute and chronic aspects, and its occurrence, which had never before been

\* With regard to former schemes for improving that asylum, see *Journal of Mental Science*, Vol. xli., p. 330. On May the 16th, 1895, less than two months before the date of the report before us, this matter was again brought before the House of Lords by Lord Belmore and Lord Ashbourne, who was then in opposition. There seemed to be a dispute as to whether the expenditure contemplated at the Richmond Asylum was to be £60,000 or £110,000, but Lord Ribblesdale admitted that he himself and the Government of the day for whom he answered (it was during Mr Morley's Chief Secretaryship) were favourable to the scheme of relinquishing the old buildings, but he said that the Board of Control could not see their way to adopting this plan. It is not easy to see why the Inspectors have not referred to this question. Clearly, the "temporary accommodation" which has proved so satisfactory must have cost much less than the smaller of the sums mentioned in the gilded chamber.

reported in its epidemic form in the British Isles, attracted much public attention and gave rise to a good deal of discussion as to its origin. The overcrowded condition of the wards in both male and female houses operated no doubt as a marked predisposing cause, and led to the multiplication of the specific germs which must have been in some way imported from abroad. The total number of occurring cases was 152 ; the deaths, 25 ; the first case was recognised early in May, and the last case reported in November, since which time the institution has been entirely free from the disease. The epidemic during its whole course attacked only the insane inmates of the institution ; neither officials, attendants, nor their families, nor visitors having in any way suffered from it. Amongst the inmates, patients admitted to the asylum a few months before were found to be as liable to the disease as those who had been years within its walls. Neither sex nor age appear to have had any prophylactic power, both young and old being attacked without distinction. To meet the overcrowding it was decided to erect temporary accommodation for the superfluous population, pending the erection of the new asylum at Portrane.

It is unfortunate that no steps were taken earlier to meet the overcrowding, so long recognised and so loudly complained of. No further medical details are given : no suggestion is thrown out of a possible source of origin. Neither is the connection so frequently observed in the East between endemic dysentery and béri-béri dealt with. The Inspectors do not say anything of the occurrence of a similar visitation in institutions for the insane in other countries. They speak of béri-béri, by the way, as an Eastern disease. That is hardly quite correctly said of a disease so prevalent in South America, and which has occurred in epidemic form in several places in North America, for instance, in Newfoundland.

#### *Cost of Maintenance.*

The average net cost of maintenance in District Asylums during the year was £22 2s. 6d., or 8s. 6d. per head per week. The maximum rate was at the Richmond Asylum, £27 0s. 11d., and the minimum at Castlebar, £17 2s. 9d. The disparity is very remarkable.

#### *Memoranda of Inspection.*

Appendix F. contains the memoranda made after inspectional visits to the various asylums. They tell a wonderful story of overcrowding and structural difficulties everywhere, and suggest that the amount of responsibility and work

thrown, not only upon the medical officers, but upon the Inspectors, if the asylums are ever to be brought up to the modern standard, is vast. We notice gladly that the latter steadily support an increase in the strength of the medical staffs ; that more attention is being given to nursing ; that trained nurses are being recommended for employment in many places, and have been employed in several ; that a full proportion of attendants to patients, both by day and night, is persistently pressed ; that the special training of attendants, undertaken under the regulations of our Association, is urged and commended, and that generally an endeavour is made to raise the standard of asylum work and asylum workers, both medical and lay—a specially difficult task in a country where office is popularly looked upon as a mere milch cow, and where intrigue and not work is generally esteemed the road to success. These memoranda contain several appreciative and kindly notices of individual medical officers, both superintendents and assistants, particularly at the asylums of Armagh, Mullingar, Ballinasloe, Londonderry, and Downpatrick.

#### *Criminal Asylum.*

A special appendix is given to the statistics of the Central Asylum, Dundrum, the memorandum of inspection there, and the report of the resident physician. The Inspectors note—

With regard to employment, the system of payment for work done, which has now received the sanction of the Treasury, would appear to have produced most satisfactory results. The inmates, many of whom would otherwise wander about in idleness, seeking some mischief to do, dangerous to themselves and others, are by this means induced to assist in useful work, and their lives are made happier and feelings of self-respect and control are inculcated.

#### *The Insane in Workhouses.*

The Inspectors continue to deplore the increased number of the insane in workhouses. The very careful memoranda of inspection of certain workhouses show that the state of affairs recently made public in the *British Medical Journal* is not exaggerated.

Little that is new is said about the private asylums.

The Inspectors again draw attention to two great wants in provision for the insane in Ireland : the lack of accommodation for middle-class patients and the absence of a national

institution for the training and education of idiot and imbecile children.

On the whole we leave the Inspectors' Report with some feeling of regret for the difficulties under which those gentlemen evidently labour. To endeavour to improve asylums in a land where there appears to be little educated public opinion favourable to advance in the treatment of the insane is in itself an irksome task, and the position of the Irish law in this matter makes further difficulties. The constant intervention of the Privy Council must hamper the action of the Inspectors very materially. The management of great medical charities through a Government bureau presents grave inconveniences, and the country where this is needful cannot be favourably situated for progress. Consequently we find that the Privy Council regulations are not always as apt as we should wish, and that though they throw grave responsibilities upon the Inspectors and upon the Medical Superintendents of asylums, they do not give proportionate powers to either. In Ireland, too, the rule of Government departments is not popular, and much of this unpopularity must cling to the Inspectors and tend to render them less useful than if their hands were more free. Similarly, with reference to the Board of Control. The Inspectors are *ex-officio* members of that body, whose position with regard to provision for the insane they have correctly laid down in words quoted above. The notion of a central board vested with the responsibility of building and amending all the asylums in the country is a hard one to comprehend according to English ideas. It is clear enough that, with the other work which is thrown upon them, the Inspectors cannot have time to undertake this enormous task. But they are not in the independent position of critics, since they themselves are members of this ruling body. It is as if the Superintendent of an asylum were a member of the Committee and compelled to acquiesce in every vote which a majority carried. This situation would be well-nigh intolerable, and would call for the exercise of almost superhuman sagacity, tact, and courage. The Board of Control, also, unlike other great spending departments, publishes no report of its transactions. Indeed, it is doubtful to whom it could address such a report, or to whom it is responsible. One of the least inconveniences resulting from this fact is that the history of important proceedings may need to be searched for partly in the Inspectors' Report

and partly in Hansard, and not found in a wholly intelligible form in either. But, if the Board of Control are beyond criticism, the Inspectors are not, and the innumerable points at which they are brought into contact with the Governors of Asylums give the latter abundant opportunities of avenging upon them the delays and indecisions of the unpopular Board of which they are only two members. And so, instead of gaining the influence they require, they lose prestige, as well as independence, by their connection with the Board of Control.

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*Les Causes de la Folie, Prophylaxie et Assistance.* Par EDOUARD TOULOUSE. Paris: Société d'Editions Scientifiques, 1896, pp. 480. Price 7fr. 50.

In this work, largely one of compilation, Dr. Toulouse has endeavoured to bring forward facts bearing upon the etiology of insanity, and made an attempt to systematise them with the view of placing the subject upon a more secure basis. While etiology is obscure in diseases generally, nothing is more true than that it is most obscure when we deal with mental diseases, and no one can read this treatise without realising how extremely complex the question is. To facilitate descriptions, Dr. Toulouse considers separately the questions of predisposition and direct causes, the latter being subdivided into social, biological, physiological, moral, physical and pathological causes, but, beyond that this arrangement is convenient, he attaches no importance to his classification, while he urges the rejection of all classifications for the present which are rather based upon theoretical than clinical data.

Insanity is considered by the author in its widest sense—that is as a congenital or acquired disturbance, short or prolonged, of the intellectual, emotional, and voluntary faculties.

Book I. deals with predisposition (hereditary, congenital, or acquired), and, while Dr. Toulouse attributes the utmost importance to it in the evolution of insanity, he is unsparing in his criticism of those who seek to minimise the effect of so-called "occasional causes." The general question of heredity is here considered. Direct heredity is rare in mental diseases, and its apparent effects may often be explained by imitation or contagion. In discussing the

question of "dissimilar heredity" a very useful summary of the relations of general paralysis to alcoholism and nervous diseases in the progenitors is given. Before we are able to estimate the importance of the association of various diatheses with insanity, as is well insisted upon by the author, it is necessary that we should know the exact proportion in which they are found in healthy families on the one hand, and in insane families on the other, but both factors of the problem, and especially the first, are practically unknown.

In the chapter on social causes, in examining the influence of civilisation on insanity, the conclusion is that there is very probably an increase in insanity, although one cannot base this conjecture on the large number of inmates which one finds in asylums, arising from the prevalence of alcoholism and from the fact that fewer idiots, cretins, epileptics, and dementes are kept at home than formerly.

In the chapter on physiological causes we find a good *résumé* of the relations of menstrual evolution and its disturbances to insanity. The etiological relation between general paralysis and sexual abuse the author considers is obscure, and he doubts that sexual excess is an all-important factor in the production of insanity.

A careful analysis of its factors shows how complex is in reality what is called "puerperal insanity," but at the same time Dr. Toulouse points out that during pregnancy, labour, the puerperal period, and lactation respectively, some dominant factor is at play such as auto-intoxication, shock, infection, etc. Still, it is necessary that each case should be inquired into, and we should not rest content with labelling insanity occurring at or about labour as puerperal.

While we may still consider certain causes as moral causes related to insanity, we must remember that there is in reality no relation between the kind of emotion and the form of mental disease. Dr. Toulouse has also much of interest to say on the question of mental contagion.

The chapter on physical causes (in which, among other subjects, there is a good analysis of the relations between general paralysis and traumatism) is especially instructive, and serves to illustrate by excellent examples two ideas, the demonstration of which is attempted in the book:—the first that, mental disturbances being dependent upon one or several morbid processes occurring in a disease, it is evident that all classifications based upon large nosological divisions

are erroneous, because they are too comprehensive. In traumatism, as in the puerperal state, for example, there are several processes, each group of which may bring about mental disturbances more or less special to it, and not to traumatism or the puerperal state, which are wide and ill-defined expressions. The second idea is that the insane predisposition is not always and necessarily hereditary; since there are morbid causes which, while capable of creating it, so to speak, *de novo*, are apparently able to determine psychical disturbances without the aid of any other factor.

In dealing with the pathological causes of insanity the author lays special stress on the intoxications and infectious diseases. In France, as in many other countries, unfortunately, cases of alcoholic insanity are more and more numerous, especially in large centres, and while poverty is no doubt pretty frequently the cause of the increased consumption of alcohol, the license of distillers to sell spirits (often of an inferior kind) and the multiplicity of public-houses are largely to blame. Dr. Toulouse discusses in this connection the relation of general paralysis to alcohol, and raises the point as to the sub-division of general paralysis into varieties.

Under the heading of infectious diseases we find a good account especially of the relations of insanity to typhoid fever, influenza, and syphilis. Febrile or post-febrile insanities are comparable to those of intoxication, and there is in reality no special insanity to each acute disease. Between the insanity and the infectious diseases there are lesions of tissues and functional alterations, which are the true pathogenic factors (arising from fever, asthenia, intoxication), as connecting links, hence the importance in every case of studying the nature of the mental aberration, the character of the general disease, and the secondary lesions. In addition to this, while predisposition guides the localisation of the morbid process, the character and the temperament of the individual give the delusions their personality. The general considerations (p. 229-239) of the author on this subject are especially valuable, and the same may be said of those further on concerning the alternating physical and psychical disturbances in the "arthritic" diathesis—"arthritism" being, as is well known, an expression in favour with French pathologists, and applying to those diseases in which alterations of nutrition are predominant, metabolism

slow, and uric acid in excess. There is a good deal of evidence that it is especially in subjects of the arthritic diathesis that alcohol and syphilis the most easily bring about general paralysis.

In Book III. the author studies the *rôle* of predisposition and occasional causes in the evolution of insanity. That the notion of occasional causes has been pushed to extreme lengths is undoubted, for have we not had tubercular, hepatic, cancerous insanities described? Unfortunately this has had the result of checking the study of their influence in etiology, for, as Dr. Toulouse remarks, it is injudicious to fly to the other extreme, and declare that predisposition is everything, and that other causes have no influence in the genesis of psychopathies.

The day that we can find the anatomical substratum of a predisposition to a certain definite psychopathy we shall have made headway. At present all neuropathic antecedents are placed much on the same level of importance, whereas they may differ enormously in their influence. What are the anatomical and physiological sequences to toxæmias and other severe diseases? Morbid conditions, apparently very diverse, are undoubtedly closely related by exhibiting similar pathogenic processes which are capable of producing analogous psychical disturbances, so that, as Dr. Toulouse puts it, "there are no etiological psychoses, but pathogenic psychoses," and it is in the determination of the latter that lies our hope of advancing our knowledge of insanity. Moreover, when we label some insanities as cardiac, phthisical, etc., we forget that in pathology there is really no such thing as a cause, but there are etiological factors or conditions which are often very numerous. Very little reflection shows how complex the subject of etiology is, for assuming that in any case we have determined the anatomical substratum of a predisposition to insanity, and that peculiar to an occasional cause (such as typhoid, or syphilis, etc.), then all is not explained, for the patient has in himself a host of psychopathic determinants;—his character, his energy, his will, his intellectual attainments constantly give his mental symptoms their own *cachet*.

Finally, in Book IV. there are interesting suggestions concerning marriage, divorce, misery, alcohol, etc., in their bearing on the prophylaxis of insanity, and a chapter on the housing of the insane and drunkards. As regards alcoholics, Dr. Toulouse suggests that there should be special

asylums for all those who suffer from the craving after alcohol, and whatever be the viscus first affected (brain, liver, etc.), that they should be admitted only when free from mental disturbances (the insane alcoholic would be removed to this asylum when discharged from a lunatic asylum). They should remain here at least six months.

After a careful perusal of this book one can but congratulate the author on having produced a most valuable work of reference—not merely an olla podrida of dry facts relating to the etiology of insanity, but a well-planned and most interesting treatise. There is a most extensive bibliography, and the book is carefully indexed.

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*Les Caractères et l'Éducation Morale, Étude de Psychologie Appliquée.* Par FRÉDÉRIC QUEYRAT. Paris. Félix Alcan, Editeur. 1896. Pp. 171. Price 2fr. 50c.

This small book, dedicated to Monsieur Ribot, is especially addressed to those whose task is the education of the young. It is an attempt to define character and to study its varieties; to point out the elements of character which it is necessary to cultivate or produce in education, and to indicate the means of furthering this end.

In 1843 J. Stuart Mill urged the scientific study of character under the denomination of ethology, and Alex. Bain was one of the first to bring out a special work on this subject—*Study of Character*—in which he distinguishes three fundamental types, the intellectual, the emotional, and the wilful or energetic. Since then much literature has appeared in this connection, to which the author briefly refers in his introduction.

M. Queyrat's definition of character is “a crystallisation of habits around a central nucleus which is the primitive temperament or disposition,” and at the outset he analyses the two essential elements: the natural disposition and habit, and discusses the influence of heredity on character.

The classification of the forms of character (pp. 36 and 37) which he suggests is based on the predominance or the combination in varying degrees of the three essential psychical elements: the emotions, the intellect, and the will; and in Chapters II.-VII. inclusive we find a description of the different kinds of character which are met with.

a. To the first class belong those characters in which

there is a marked predominance of one particular faculty or tendency. In order to illustrate by examples the various types of character to which he refers, the author has introduced throughout the book, frequently with short sketches, the names of historical individuals, or celebrated names in fiction, with most happy results; for in addition to impressing his views upon the mind, the effect is to add a good deal to the enjoyment of his work. So that in this class for example we find mentioned as possessing the intellectual type of character, Newton, Leibnitz, Kant, etc.; the active type: sportsmen, the *condottieri* of the Middle Ages, the *conquistadores* of the sixteenth century.

b. In the second class are included characters constituted by the simultaneous predominance of two faculties; the passionate (or active-emotional) like Benvenuto Cellini; the sentimental (or meditative-emotional), Livy and Virgil; and the wilful (or active-meditative), Cato, Brutus, Frederic II. of Prussia, etc.

c. The third class includes those characters which are constituted by the harmonious combination (though in varying degrees) of the three faculties; from the well-balanced geniuses like Goethe, Descartes, Socrates, Marcus Aurelius, to the phlegmatic or apathetic type, of which Fontenelle was an interesting example, and the vulgar amorphous type distinguished by an equilibrium in mediocrity.

d. In the fourth class we find as characteristics an irregular or intermittent exercise of one or several tendencies. Among these we may place the unstable character as found in Casanova; the irresolute, of which Coleridge is a type; and the contradictory, so admirably portrayed by Molière in *Le Misanthrope*.

e. The class just considered (d) we may look upon as semi-morbid; but there are three further types, in reality pathological, which result, so to speak, from the hypertrophy of certain varieties above-mentioned, and which the author classifies under the heading of "morbid types"—(1) The hypochondriacal: Swift, Turner, and the notorious Jean Jacques Rousseau; (2) The melancholic: Cowper, Chatterton, Maurice de Guérin; and (3) The hysterical, so vividly typified by Madame Bovary, as painted by Flaubert in his wonderful psychological novel of that name.

In Chapter VII. M. Queyrat reviews the various characters considered, analysing their advantages and drawbacks, and, after comparing them with one another, he justly concludes

that the ideal to which one should tend is the realisation of the well-balanced character, in which the various faculties are harmoniously combined; one faculty may be, and often is, conspicuous, but the association with the other two sets it off to advantage, and at the same time acts as a check to its exclusive predominance.

The last chapter (Chapter VIII.) deals with the education of character. The author joins issue with men like Spinoza, Spencer, Ribot, etc., who doubt the power of education to modify character. "To conceive character as not modifiable by education is to proclaim the powerlessness and uselessness of morality." Fortunately the practice of humanity, the experience of pedagogues, and our own intimate experience, he adds, rebel against this view.

Tendencies are far from being unmodifiable; one can, for example, strengthen or repress an emotion, according as we give it or withhold from it satisfaction; and he instances the great change wrought in the character of the Duc de Bourgogne, grandson of Louis XIV. of France, by the influence of his tutors, notably of Fénelon.

In the process of education, M. Queyrat believes in the assistance which can be given by medicine and hygiene. He then makes important practical suggestions to the teacher as regards his dealing with the will and emotions of his pupils; to inspire sympathy, awaken feelings of ambition, cultivate affection, encourage self-reliance, etc., according to the disposition of the pupil, are some of his directions. Before all, it is indispensable that the nature of the character which one desires to influence should be thoroughly studied, in order that such and such a faculty should be either developed or checked as needs be.

Finally, in suitable cases and in proper hands, he holds it legitimate to try hypnotism in the reformation of character.

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*L'Idiotie—Hérédité et dégénérescence mentale. Psychologie et Education de l'idiot.* Par le Dr. JULES VOISIN. Paris: Félix Alcan, Editeur. 1893, pp. 295, Fig. 17. Price 4 fr.

This book is based on a course of twelve lectures given by Dr. Voisin at the Hospice de la Salpêtrière, and should be useful to students and practitioners who desire to possess some elementary knowledge on the subject of idiocy.

It is cheering to read at the outset that Dr. Voisin

strongly holds the view that "instincts are transmissible, and modifiable by environment and especially education, and that such modifications are transmitted hereditarily," for there is no lack of those who hold that degeneration is fatally progressive. In discussing the causes of idiocy, our author acknowledges the frequent complexity of aetiology, but in the illustration which he gives of the influence of the psychical state of the parents at the time of conception on the mental condition of the future offspring he proclaims aetiology uncommonly simple.

A useful summary of the multiple lesions found in cases of idiocy is given in the third lecture, and prepares one to realise the difficulty of any attempt at defining or classifying idiocy. In this connection Voisin criticises and rejects the classifications which have appeared in succession, based on a comparison of the symptoms of idiocy with those of the development of the normal child, on a comparison of the intelligence of idiots with that of animals, or a comparison of idiots with various types of the human race, etc. ; and, while doing full justice to Seguin's work on the education of idiots, he strongly combats his views as to the nature and psychology of idiocy. The organs of special sense are far from being necessarily imperfect as Seguin holds ; indeed they are generally healthy, but the centres of perception are diseased. "It is the want of perception and ideation rather than absence of will which constitutes idiocy," he adds also, in opposition to Seguin's view that there is decided affection of the will in these cases.

Voisin's definition is : "The idiot is an individual whose intellectual, sensory and motor faculties are undeveloped or abnormally developed (in a defective manner), or else have been arrested in their evolution, before or a few years after birth, at a stage beyond which they cannot progress, as a consequence of various foetal or chronic lesions of the brain."

He classifies idiocy into four groups :—

1. Complete, absolute idiocy, congenital or acquired. There are two degrees : *a.* Anencephalous and those who do not even possess the instinct of preservation. *β.* Those who possess the instinct of preservation and certain habits. Some of these cases are strictly demented. Class 1 is incurable.

2. Incomplete idiocy, congenital or acquired. This class is susceptible of improvement ; it includes several degrees,

according to the presence, absence, or range of certain intellectual, sensory, or motor faculties.

3. Imbecility, congenital or acquired—characterised by the presence in a rudimentary form of all the intellectual, instinctive, or moral faculties, and by the perversion or instability of these faculties.

4. Mental debility, characterised by the enfeeblement or the want of equilibrium of the faculties.

Cretinism or myxœdematous idiocy forms a separate group.

This classification is based on the psychology of idiocy and may be logical, but it strikes one as difficult of application in practice.

One point on which Voisin lays stress in various parts of his book is that every idiot presents associations of sensations and perceptions (usually very simple) and associations of affective states; these, however, are most important to recognise, for they guide us in the process of education. For the same reason it is necessary in each case to determine the state of the motor, sensory, and sensorial centres. Some idiots belong to the "visual" type, others to the "auditory" type, etc. Vision and touch are the most important senses.

The signs and symptoms of idiocy are dealt with in the fifth lecture. The author appears inclined to support Magitot in his conclusion that the longitudinal and transverse striae observed on the teeth are rather stigmata of degeneration than evidence of syphilis, as is held by Hutchinson. The observations which Bourneville made on the genital organs of male idiots (and which led to a heated discussion at the "Conseil Municipal de Paris") have been carried on by Dr. Voisin in the case of female idiots, and his conclusions are, that in the case of female idiots, puberty is not retarded (Bourneville found the opposite in boys), and anomalies in form of the genital organs, which nearly always affect the glans of the clitoris and the nymphæ, are mostly due to masturbation.

In dealing with the senses of idiots, Voisin says that deafness is rarer among them than among intelligent people. This point is worth investigating by "ear and nose" surgeons, especially in view of the constant relation as cause and effect said by some to exist between nasal obstruction and a high palatine arch; for nasal obstruction is a frequent cause of deafness, and idiots have frequently high palatine arches. But is nasal obstruction common among idiots?

In connection with the blunted sensibilities of idiots, Voisin wisely emphasises the importance of watching closely for signs of disease in them, as objective signs are practically the only ones to guide us.

Nearly a hundred pages of the book are devoted to the psychology of idiocy and form interesting reading. Voisin incidentally remarks that his observations of idiots have led him to share the opinion of Kussmaul that ideas are often independent of words, and a study of their faculties of writing, reading, etc., leads him to the conclusion that there is in idiocy an inequality of development of different psychical centres and a relative independence from each other. Defect in one or other perceptive centre, or in the fibres uniting them, often explains various shades of difference in cases of idiocy or imbecility.

The last lecture deals with the treatment and education of idiots, and lays down the principles which should guide one in this work. Craniectomy is considered justifiable only in epileptic cases or in idiocy symptomatic of cerebral tumour.

One criticism (which unfortunately often applies to French works) should be made as regards the spelling of such names as *Gulls*, *Wirchow*, *Hutchisson*, *Orl*, etc., which stand for Gull, Virchow, Hutchinson, Ord, etc.

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*A History of the Chronic Degenerative Diseases of the Central Nervous System.* By THOMAS KILPATRICK MONRO, M.A., M.D., Fellow of the Faculty of Physicians and Surgeons of Glasgow; Assistant Physician to the Glasgow Royal Infirmary; and Pathologist to the Victoria Infirmary of Glasgow; pp. 82. Glasgow: Alex. MacDougall, 68, Mitchell Street. 1895.

This work is part of a graduation thesis for the degree of M.D. of the University of Glasgow, and gives an account (which has been to some extent annotated by Professor Gairdner) of the various advances in our knowledge of the chronic disorders due to primary degenerations in the central nervous system. The diseases considered are tabes, primary spastic paralysis, ataxic paraplegia, hereditary ataxia, progressive muscular atrophy, bulbar paralysis, ophthalmoplegia, the peroneal type of muscular atrophy, and disseminated sclerosis.

It will be seen that this list, as indeed the author himself admits in his introduction, might have been easily extended;

but the treatment of the subjects mentioned, though somewhat unequal, is most interesting and well worthy of the perusal of every physician who is interested in the history of the progress of neurology, and of those who suppose that we have attained to finality in our knowledge of nervous diseases. This history shows by what slow, halting, and often backward steps our present standpoint of knowledge has been attained.

One fourth part of the work, about twenty pages, is devoted to the history of locomotor ataxia, or, as Dr. Monro prefers to call it, tabes—that most interesting of nervous diseases. We are glad to see that justice is done to the pioneer work of Todd in connecting the changes in the posterior columns with this disease; and that its priority to the publications of Romberg and Duchenne is noted. In the account of the disease each new step in our progress is carefully stated, and in such a way as to constitute this an invaluable work of reference to anyone studying the history of tabes.

The chapter on the history of progressive muscular atrophy is equally full, though not so long. The author mentions the little known fact that the first observer who really recognised the nature of the disease was an Englishman, Darwell, and not Duchenne, whose name it generally bears. On noting this one cannot help regretting that so much good work done in this country should sink into oblivion, and should not be rescued until some of our continental confrères have succeeded in gaining the credit of discovery. Dr. Monro traces carefully the steps by which the various forms of muscular atrophy, spinal, neuritic, and idiopathic, have been disentangled from each other. The chapter closes with a discussion of the relation of progressive muscular atrophy of anterior cornual origin to sclerosis of the crossed pyramidal tracts. The author inclines to side with Gowers's view that such a lesion is present in all cases. We would remark, in this respect, however, that Gowers quotes a case in which such lesion was wanting, and that Charcot's son has recently published a thesis which appears to establish the existence of an independent chronic disease of the anterior cornual cells.

On closing this work one feels a regret that there is not more of it, and one cannot but hope that Dr. Monro may be induced to publish the rest of his thesis.

*Studies of Childhood.* By JAMES SULLY, M.A., LL.D.  
London : Longmans, Green, and Co., 1895. Pages  
525. Price 10s. 6d.

In this handsome volume we find collected a series of essays on certain aspects of child-psychology, many of which have previously appeared in magazine form. The introductory chapter surveys the progress made since the time of Rousseau in the study of the mode of evolution of infantile intelligence, and we find references to the poetic and sentimental interest in the matter displayed by such writers as Wordsworth, R. L. Stevenson, Dickens, and Victor Hugo, as well as to the more exact observations of Sigismund, Darwin, Preyer, and Lionel Robinson. Professor Sully points out the peculiar interest to the psychologist of the "genetic tracing back of the complexities of man's mental life to their primitive elements in the child's consciousness," and rightly insists on the necessity of a scientific habit of mind in order to make observations and form deductions of real value. It is perhaps too much the fashion to think that nursery psychology may be practised without training in logical methods. Such casual observations of infantile phenomena are, however, apt to be fallacious; witness the traditional conviction of the Irish nurse that the pseudo-smile of the flatulent suckling proceeds from "visions of angels!"

In considering the play of infantile imagination, it is argued that imaginativeness does not exist in all children alike. Ruskin, indeed, has stated that when a child he was incapable of acting a part or telling a tale, a state of things we should not have predicated in the case of one so poetically gifted in adult life. It may indeed be argued that what passes current as exceptional moral rectitude, as in the familiar case of the great statesman who in childhood was incapable of lying, is but a mark of deficient imaginative power in early years. As Sully well remarks, "most children are at once matter-of-fact observers *and* dreamers, passing from the one to the other as the mood takes them, and with a facility which grown people may well envy." In extreme cases childish imagination may even lead, by transformation of sense impression, to a degree of momentary illusion. There is a constant tendency to assimilate the new and strange to the familiar, and what appear to us as pretty conceits are sometimes thus produced,

as when a child noticing dew for the first time, exclaims "Mother, the grass is crying!" The power of making everything out of nothing is referred to by Ruskin as the "perfection of child-like imagination," and will explain much to the careful observer of the spontaneous play of a child. Perhaps we may add that in processes of dissolution of higher faculties, such as we see in the insane, we have examples of reversion to primitive modes of mental action.

In considering the dawn of reason, it is remarked that as a rule the earliest observations made by an infant are partial, that is to say, restricted as regards direction, though they may be minute so far as they go. Thus colour is often more impressive than form, as in the case of the eighteen-month-old child who called black lambs "doggies" and white lambs "lambies." Comparison not only of form and colour through the eye, but (as we would add) of contrasting tactile impressions in quite young children, is "of the very essence of understanding."

"The questioning age" is said to be ushered in with the fourth year, though casual interrogation may commence as early as the third. The "what," the "why," and (as Marie Corelli reminds us in *The Mighty Atom*) the "whence," form successive stages in the child's thirst for knowledge, and the parent must not try to repress the inquisitorial zeal of the budding intelligence. Most children have practical instincts, and are prone to speculation as to how things are made, be they beans, birds, or babies. "I want to know who made God, and I want to know if pussy has eggs to help her make ickle kittens?" was the puzzle propounded by a four-year-old philosopher to his bewildered mother! Questioning must not be looked on as mere "cussedness," as the tendency, if tiresome, is of important educational value; but in some cases reiteration of answered queries, as observed in feeble-minded children, seems to denote deficient attention, and should not be encouraged.

Chapter IV., which treats of the products of child thought, is specially interesting, more particularly where it traces the child's thoughts about nature. The tendency to "reify," or make things of, visual impressions may be early noticed, as when a two-year-old child tries to touch shadows, or to "gather sunlight in her hands and put it on her face." The interest in movement displayed by all children is often associated with a disposition to interpret seeming self-motion as a sign of life, so that balls, hoops, &c., not to mention

locomotives, fire and smoke, are spoken of as possessing vitality. Children's ideas are essentially anthropomorphic, and we have from an American source a tale reminding us of the old Norse myths, a child's explanation of thunder as the noise of a loaf of coals being run in for the Deity! Homely conceptions of theology are illustrated by the question of a little girl of four, "Isn't there a Mrs. God?" Professor Sully is of opinion that children of three and four are "for the most part simply confused by the accounts of God which they receive."

Chapter V., entitled "The Little Linguist," traces the gradual evolution of speech from pre-linguistic babblings. It would appear that from mere cries the first step towards articulation is the formation of open sounds like *oo* and *ā*. Then comes *la-la-ing*, afterwards simple labials, though with certain children guttural sounds. Reduplications of sounds successfully attempted are common, perhaps from physiological inertia, but more probably from the pleasure of self-imitation and of simple rhythmic effect. Gesture language precedes articulate speech, and it is argued that there is a spontaneous expressive articulation out of which language grows, the former being often original rather than imitative, as when Darwin's boy employed the sound "*mum*" to indicate food, afterwards calling sugar "*shu-mum*" and liquorice "*black shu-mum*." Among imbecile children, necessarily somewhat isolated from the family, we have known quite an original vocabulary evolved with a philology of its own. The order in which words are used with due appreciation of their meaning is very interestingly illustrated, and the child's early struggles with the irregularities of the English language are pathetically described. The misinterpretation of words, as "*average*" being "*what the hens lay on*," and misconception from similarity of sound, as of the boy who persistently used for the opening petition in the Lord's Prayer "*Harold* be thy name," are amusingly instanced.

The feelings of children form the subject of the next chapter. It is stated that while apparent manifestations of fear are well marked in the young child, it is possible that to some extent these are reflex rather than mental. The startling effect of sounds, and the disconcerting effect through the eye of changes of surroundings, are discussed as factors of mental uneasiness, as are also the fear of animals, the fear of the dark, &c. ; and it is pointed out

how large a share imaginativeness has in the production of terror. "Primitive egoism" is dealt with in relation to the raw material of morality. Sully's doctrine is founded upon the observation that "for some time after birth the child is an incarnation of appetite which knows no restraint," and the removal of the feeding-bottle before satiety is reached is referred to as the first step in the thorny path of self-denial. Anger and cruelty are discussed ; and it is pointed out how curiosity is often the determining factor of destructiveness. Altruism, as shown by sympathy with, and a disposition to aid, others, is of course a later development arising from instinctive sociability, which is normal with the majority of children. Children's lies are sometimes traceable to a natural tendency to secrete things, sometimes to a predominant imaginative power.

The struggle with law forms the subject of the eighth chapter. It is shown that in the child there are compliant as well as non-compliant tendencies towards law and authority, but much depends upon how the latter are asserted. "To expect the right thing, as though the wrong thing were an impossibility, rather than always to be pointing out the wrong thing and threatening consequences" is the most judicious line of discipline, and will be followed by the most practical results. The action in moral training of a quasi-hypnotic suggestion, as in the inspiriting dictum "You can do it if you try," is justly commended.

Our space precludes us from following in detail the chapter on "The Child as Artist," with its amusing original illustrations, or commenting on the voluminous "Extracts from a Father's Diary," but we have said enough to indicate that the book is a mine of wealth, from which many valuable hints may be derived by those practically or theoretically interested in the psychological development of childhood.

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*La Sociologie Criminelle.* Par HENRI FERRI. Paris: Rousseau. Troisième édition. Pp. 648. Price 10 francs.

*Criminal Sociology.* By ENRICO FERRI. (The Criminology Series.) London: Fisher Unwin, 1895. Pp. 284. Price 6s.

This work—of which the chief chapters have lately been presented to readers of the Criminology Series—is one of five books on which the modern criminological movement may be said to rest; the first and best known of these is, of

course, Lombroso's *Uomo Delinquente*; another is Marro's *Caratteri dei Delinquenti*, a monument of patiently elaborated original work which can never be popular, but deserves to be considered a classic; another is Ferri's own wonderful and complete study of homicide under all its aspects, only recently published; the fourth is Garofalo's *Criminologie*, dealing with the legal aspects of criminology. Of all these works, the present, although it has hitherto been little known in this country, is perhaps the most generally interesting and the most ably presented. As an introduction to the views of the Italian school it should most certainly be read before any of the others. The author is a professor of criminal law, who is at once an accomplished anthropologist and a philosophic sociologist, warmly sympathising, however, with the advanced movements of the time. These sympathies have indeed lately led to his retirement from his chair at the University of Pisa, and to the assumption of professorial duties at the new Free University of Brussels. He is at the same time no hot-headed revolutionist, but a man of grave and sedate cast of mind who approaches every problem with the temperament of the philosopher, and seeks always to see it steadily and see it whole. And he is, finally, a master of eloquent and lucid exposition. A man who combines so many rare and admirable qualities should be able to present the views of the Italian school in the most attractive light. The reader of this book—preferably in the unabridged French edition, translated by the author himself—who remains unconvinced may certainly rest assured that the fault lies either with the ideas or with himself, not with the expositor.

Putting aside short introductory and concluding chapters, and a fairly full bibliography occupying some fifty pages, the work consists of four main chapters. The first attempts to present, in a clear, brief and reasonable shape, the chief data of criminal anthropology. The next deals similarly with the data of criminal statistics. These two chapters occupy about half the volume. The next two chapters, which occupy most of the rest of the volume, are more constructive and original, and treat the positive theory of responsibility and the question of practical reforms.

It will thus be seen that Ferri deals very broadly with the great problem of criminality. His main point is that it must be so dealt with; he protests from first to last against

the methods of the "classic school" by which crime is treated as an abstract entity, and the criminal, with all his peculiarities, entirely ignored. In this matter what we call law or justice is simply a name for the inevitable "social reaction" against criminality. Society must see to it that this social reaction is reasonable and efficacious. We are helped to do so, Ferri believes, if we always translate, actually or mentally, our current terminology into terms of social reaction, and instead of speaking of crimes and punishments speak of offences and defences. He illustrates this point effectively by a reference to insanity. The social reaction involves an inevitable defence against the insane. But up to the end of the last century that reaction took the absurd form of punishment and contempt. We still treat our criminals with punishment and contempt. And it has proved to be equally unreasonable, equally ineffective. The time is coming, has indeed actually come, to do for the criminal what Tuke, Pinel, and others did for the insane. Hence the immense importance of Lombroso's identification of "moral insanity" with "instinctive criminality." Madmen and criminals have been brought into line. They are both beginning to be recognised as members of the same great family of abnormal, degenerate, anti-social persons. This point will remain unshaken, whatever disputes may occur on matters of detail. Henceforth the wrangles of lawyers, founded on extinct metaphysical notions, have become mere child's play of no scientific importance. Practical importance, it is true, they still retain. It thus becomes the duty of the scientific alienist to set his house in order and to see to it that he does nothing to perpetuate these notions. "Every man is responsible for his actions because, and so long as, he lives in society." Responsibility means that a man suffers the consequences of his actions. The social reaction against anti-social actions is a primitive and inevitable fact of all social life. But it is in our power to shape this inevitable social reaction. We may ameliorate the conditions that produce anti-social action, treat the anti-social person in such a way that he may cease to be anti-social, and in the last resort we can place him where he is unable to gratify his anti-social instincts. To attain these ends society must work through the lawyer and the alienist, acting in conjunction. The chapter on practical reforms deals with some of the chief methods for attaining these ends. With most of them—social amelioration, reparation

by criminals, conditional liberation, indeterminate sentence, —we are now fairly familiar.

Criminology, thus regarded, while remaining a juridical science, becomes a branch of sociology, based on anthropology (with psychiatry) and statistics.

This brief summary fails to do justice to Professor Ferri's cool and logical elaboration of his main thesis, but it may serve to show how he develops the wide social issues of the alienist's work, and may help to call the attention of English readers to this remarkable and important work.

The translation in Mr. Morrison's Criminology Series is as careful and competent as that of Lombroso's *Female Offender* with which the series opened. It is, however, very incomplete. Only the three most important chapters are presented, and that in a very abbreviated version, and with a general omission of references. Several chapters are wholly omitted, as well as the bibliography, and there is no index. But the translation will be useful to those who wish to obtain, with a minimum expenditure of energy, a brief authoritative statement of the chief contentions of the Italian school.

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*Outlines of Psychology.* By OSWALD KÜLPE. Translated by E. B. Titchener. London, 1895. Swan, Sonnenschein. Pp. 462.

Thirty years ago England, with its observational school of psychology, founded largely on the doctrine of association, was ahead of Germany and the world generally. Since then a new movement has arisen in Germany, which has placed that country indisputably at the head, while England remains almost in the same position as before, and it would be difficult for Ribot to add any important chapter to his memorable history of English psychology. One of the results of this new balance of power in European psychology is that we in England have to depend on the Germans for the exposition of the new psychology. It is true that the Americans are devoting themselves to experimental work, but they appear too busy in their well-equipped laboratories to find time for lucid and comprehensive exposition. (James and Ladd may seem to be exceptions, but while largely interested in experimental psychology they belong by training and sympathy to an older school; this is true even of Baldwin, as of Sully and Morgan in England.) This is an unfor-

tunate state of things, for not only is the German usually unfitted to make an effective appeal to the Englishman, but he has always been notoriously inapt for the expositor's work.

It cannot be said that Prof. Külpe's *Grundriss der Psychologie*—though very competently translated by Prof. Titchener, of Cornell University—does much to alter this position of affairs. The author, although for a long period Wundt's chief assistant at Leipzig, possesses neither the attraction which must always belong to a great original investigator like his master, nor the charm of a skilful expositor. Moreover, although on the title-page the book is said to be “based upon the results of experimental investigation,” these results themselves are only recorded in the very baldest and vaguest shape, and even the references to the literature which contains them is extremely inadequate. The book is *doctrinaire* and attempts to force facts into a system, for which the way is yet scarcely clear, so that while undoubtedly based upon experimental results, its tendency is to run into that premature methodism against which all experimental psychology is a protest.

Although Külpe's starting point is in Wundt, he by no means follows Wundt closely, and on many points departs from him widely. His work thus has the advantage, and the disadvantage, of being a fairly independent and original presentation of the problems of psychology. The most striking and fundamental point in Külpe's psychology is the thorough-going and systematic manner in which he uses sensations as the “elements of consciousness,” from which nearly the whole structure may be built. In this no doubt he illustrates an interesting and important tendency in contemporary psychology, although his method of working it out is his own. Sensations, with their four attributes of quality, intensity, duration and extension, occupy the greater part of the work. Memory and imagination are “centrally excited sensations.” Feeling, indeed, is an independent conscious process, which accompanies sensations under given conditions. Külpe refrains from regarding feeling as an attribute of sensation, largely on the logical ground that it is inadmissible so to count a process which is itself possessed of the attributes which belong to sensation. Emotions and impulses, however, consist of feelings added to sensations. No doubt the best, as it is much the largest, part of the book is that concerned with the specific senses and the

discussion of the fusions and colligations of sensations as usually understood. A very short part deals chiefly with attention and will (explained chiefly by apperception), and hypnosis and sleep are briefly dismissed in the concluding section.

It cannot be said that the book is a model text-book, even if it can fairly be described as a text-book at all. Nor is it written with any special reference to the interests of psychiatrists. While, however, it cannot be recommended as an introduction to experimental psychology, Prof. Külpe's work is not one to be ignored by those who are keenly interested in psychological problems. It is the work of a fairly vigorous and independent thinker, and no fellow-worker will fail to derive some stimulus from it.

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*L'Année Psychologique*, 1895. Publiée par MM. BEAUNIS, BINET, RIBOT, HENRI, etc. Paris: 1896. Alcan. Pp. 1010. Price 15 francs.

The second issue of this admirable year-book is even better than the first, and considering its size it is issued with praiseworthy promptitude.

The volume is planned in much the same way as the first, but the sub-divisions are more numerous, and they are better filled out with useful matter. The first 500 pages are devoted to original work under the three headings of "Memoirs by Collaborators," "Investigations carried on at the Paris Laboratory of Experimental Psychology," and "General Reviews." The Memoirs include a brief study of character in the various stages of abnormal and morbid progress towards complete degeneration, dealing also with the question of "temperament" (Ribot); a rapid survey of comparative psychology, reaching views opposed to those of Wundt (Forel); a note on reading-time (Flournoy); a study of the conditions favouring hypnosis in animals (Gley); the measurement of illusions of weight (Van Biervliet). Among the laboratory studies we find one of an elaborate but still incomplete character on the capillary circulation in the hand in its relation to respiration and to psychic acts (Binet and Courtier); researches on the localisation of tactile sensations (Henri); an application of the graphic method to piano-playing as a study in the psychology of movement (Binet and Courtier); a study of fear in children

and its treatment (Binet). The "General Reviews" include Histological Psychology and the Texture of the Nervous System (Azoulay) ; Cutaneous Sensations of Locality (Henri) ; the Psychology of Smell (Passy) ; a review of the important question of individual psychology (Binet and Henri) ; and a mathematical paper on the calculus of probability in psychology.

Then follows the full and well-arranged section devoted to critical analyses of the chief books and papers during the year. A considerable portion of this part is concerned with abnormal and morbid psychology, and it is altogether of great interest and value. The illustrations number about 140. The volume ends with the Bibliography, containing nearly 1,400 entries. By a sensible arrangement *L'Année Psychologique* has here joined forces with the *Psychological Review*, and utilises the work of Mr. Farrand and Mr. Warren. The proper plan is now adopted of making each entry in untranslated form.

The only suggestion we can offer for the improvement of the year-book is that in future it should be issued in two volumes. Original work occupies exactly half of the present rather cumbersome volume, and while of undoubtedly excellent quality it is much less indispensable for use and reference than the second half of the volume, and might more conveniently be issued under a separate cover.

In any shape the work is of great value for psychologists in every field. That this fact is generally appreciated is shown by the statement that the issue for 1894 is now exhausted, with the exception of a few copies which may be obtained from M. Binet at double the original price.

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*Thinking, Feeling, Doing.* By E. W. SCRIPTURE, Ph.D.  
Philadelphia and New York: Flood and Vincent.  
1895. Pp. 304. Price 4s.

This book—which has circulated, it is said, by tens of thousands in America—has excited much criticism among psychologists of the sober and old-fashioned school. Dr. Scripture is one of the ablest of the younger psychologists ; his name is well-known in connection with various highly technical investigations ; he is the director of the psychological laboratory at the venerable Yale University ; and in this book he has attempted to bring the methods and

results of experimental psychology into the streets, and to carry them down to the level of the meanest intelligence. With the help of a journalistic style, interspersed with jokes and profuse illustrations (there are 209 in this small volume), also occasionally of a comic character, Dr. Scripture courageously attempts to achieve popularity. The coloured frontispiece presenting five pictures of the American flag as it appears in various kinds of colour-blindness, is characteristic of the book. In the preface the author writes: "This is the first book on the *new*, or experimental psychology, written in the English language. That it has been written *expressly for the people* will, I hope, be taken as evidence of the attitude of the science in its desire to serve humanity." In this object he appears to have succeeded beyond all reasonable expectation, and while some objection may be raised to the style of exposition here adopted, there should not be much doubt that the author has done something which was well worth doing, and which he was very competent to do. The book is fragmentary, but it covers all the more important and interesting departments in psychology: reaction-time, "thinking-time," attention, touch, smell, taste, colour, hearing, feeling, emotion, memory, rhythm, etc. The last chapter is a brief historical sketch of "the new psychology," culminating in a brief account of Wundt, "the greatest genius in psychology since the time of Aristotle." The profuse illustrations (process-blocks and diagrams) are sometimes futile, but on the whole extremely helpful to the text. Dr. Scripture adopts a style of oracular infallibility which we are not altogether accustomed to associate with psychology, and which is certainly ill-adapted to inculcate the scientific spirit, but on the whole (though not always) the matter brought forward is fairly non-contentious. As a very simple exposition of the methods and results of experimental psychology, the book is admirable for students of the university extension order; while for all those who are ignorant of modern laboratory psychology it will prove of much interest. Adult readers must forgive Dr. Scripture his magisterial superiority and his attempts to satisfy their supposed craving for innocent amusement and mild jocularity, but if they can do so they will find him a reliable guide.

*Jeanne Darc. Vom psychologischen und psychopathologischen Standpunkte aus.* Von Jos. ZÜRCHER. Leipzig. 1895. Pp. 147.

This is a dissertation for the doctorate at Zürich, and the authoress was largely inspired by Prof. Forel, whose influence may be traced throughout. The book is perhaps somewhat overweighted by general discussion of hypnotic and other phenomena.

Dr. Zürcher, in analysing the facts concerning Jeanne which have come down to us, desired to do justice both to her genius (considering her the first among women of genius) and to the many elements of morbidity which she presents. Jeanne's first vision occurred when she was thirteen years old; she heard a voice, and saw a bright light when in her father's garden one summer day, after fasting for twenty-four hours. The voice was not shaped into intelligible words. This, the authoress remarks, can scarcely be called a hallucination; it was a mere paræsthesia due to exhaustion and fatigue at the period of puberty. But soon the voices became distinct, and the visions grew constantly more definite and elaborate, becoming most frequent during her final imprisonment. Dr. Zürcher lays stress on auto-suggestion as the chief factor in the development of these hallucinatory phenomena, and seeks to analyse the contents of this auto-suggestion. It is put down largely to national tradition which asserted that France would be saved by a pure maiden from the oak forests of Lorraine (whence Jeanne came). She denied that she was so influenced, perhaps because the influence was unconscious, perhaps because her mission would thus have been prejudiced, since the forest was associated with sorcery. The hallucinatory aptitude grew and flourished on the basis of this auto-suggestionary process, and at the time of her death the hallucinations had attained an extraordinary degree of development, doubtless assisted by Jeanne's constant fasts and devotion to religious duties. She had at last "completely identified her ego with the ideas she had assimilated." There were hallucinations of touch, taste, smell, and common sensation, as well as of hearing and sight. Dr. Zürcher considers that there were also illusions since the voices frequently came with the sound of the vesper bell. The point is not, perhaps, very important, but it may be pointed out that in paranoia and

allied conditions similar monotonous or indifferent sounds frequently stimulate the production of subjective voices, from which, however, they are recognised as quite distinct, and thus no illusion can properly be said to be present.

These phenomena are undoubtedly morbid. At the same time Dr. Zürcher holds that when we consider them in relation to Jeanne's time they lose something of their morbidity. She also points out the extraordinary extent to which auto-suggestion may be carried in a man of genius without rendering him liable to the charge of insanity; a few pathological traits have even been helpful to men of genius. She remarks, further, that recent researches in hypnotism have greatly reduced the gravity attaching to an aptitude for hallucination; and had she been acquainted with the latest volume of the *Yale Psychological Studies* she might have added that Dr. Seashore's remarkable experiments have now shown that even the normal scientific worker in the laboratory is exposed to hallucinations due to auto-suggestion. The conclusion reached by the authoress is, therefore, that although Jeanne distinctly passed beyond the bounds of the healthy and normal, she was not insane in the ordinary sense of the word; her case belongs to the pathology of genius.

Although somewhat vaguely and imperfectly worked out, this little study is not without interest.

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*On the Temperature of the Brain.* By A. Mosso. *Die Temperatur des Gehirns, Untersuchungen, mit einem Titelbilde und zahlreichen Abbildungen im Text und 5 Tafeln.* Leipzig: Veit and Co. 1894, 191s. (Investigations on the Temperature of the Brain, with numerous Woodcuts in the Text and five Tables, by A. Mosso).

We avail ourselves of the abstract of this work, given by Dr. F. Kiesow in the *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*, Heft ii., Band 9, 1895.

Mosso's investigations were made on marmots, dogs, monkeys, and human beings. The temperature was ascertained by means of a delicate thermometer which gave to the naked eye a reading of  $0\cdot01^{\circ}$ . In the experiments on animals the thermometer was included in a steel tube which was pushed through the trephined opening in the skull. In the human subject the temperature of the rectum was noted at the same time as that of the brain. The temperature of

the arterial and venous blood in the carotids and jugular veins was also ascertained in the experiments on animals. In these cases the position of the thermometer was verified after death.

In man and dogs there was found to be a greater difference between the temperature in the brain and in the rectum in winter than in summer. In curarised dogs it was ascertained that the brain lost heat by radiation sooner than the rectum. In asphyxia a rise of temperature in the brain was observed. The irritation of the brain caused by the introduction of the thermometer was attended by a rise of heat of short duration both in the human subjects and in animals. In some cases the brain was found to be colder than the arterial blood. Mosso thinks that the quantity of blood flowing into the brain is not sufficient to raise the temperature to blood heat. As the venous stream carries away heat, the arterial blood would always be warmer than the brain, were the temperature of this organ not raised by a chemical process in the ganglia. The author attaches great importance to the independence of the therinic processes in the brain. Sensations, tetanus, and convulsions can take their course unaccompanied by any rise in the cerebral temperature. He assumes that there is a store of chemical energy in the brain whose transition into heat does not run parallel with the psychical and motor functions. There is in the brain both a nutritive and a functional chemical process. Mosso considers it possible that the substances which generate heat do not serve the trophical processes of the nerve cells, but that they are consumed without helping the psychical and motor functions. The induced current, after section of the spinal cord, caused a rise of temperature in the brain which was sometimes followed by a lesser rise within the rectum. In the same way the electrical stimulus acts upon the zone of Albertoni. Although epileptic fits are thus excited in the dog, Mosso holds with Brown-Séquard (*Comptes Rendus*, 1892, September 12th) that the centre for epilepsy does not lie in the brain cortex, but that the irritation is propagated from the brain to other centres which bring on the epileptic attack. Narcotics diminish the facility of exciting epileptic fits.

Experiments were made upon the effects of cocaine, atropine, alcohol, strychnine, coffee, and absinthe upon the temperature of the brain. The animals were curarised to exclude muscular contractions. Curare and chloroform were

found to neutralise the thermic action of cocaine. The return of consciousness after chloroform caused the brain temperature to rise. Again and again does Mosso insist upon the independence of the temperature in each organ of the body. The author gives the name of organic conflagration to the thermic activity which is separable from the periods of motor and psychical activity.

This organic conflagration represents the heat evolved in the metabolic phenomena which follow the specific functions of the different organs. This production of heat is facilitated when the excitability of the brain is increased. Mosso thinks that the basis of psychical activity consists in a molecular movement in the brain cells, and should this energy pass into motion a certain quantity of heat is set free. Anæmia, ischæmia, and asphyxia also arouse heat in the brain. There is no increase of temperature after voluntary motions, and even weak electrical currents applied to the motor region of the cortex do not raise the heat of the brain.

Mosso made observations upon the cerebral temperature in an idiot of two years of age in whom trephining of the skull had been practised; on Delphina Paradi, a girl of twelve years who had a wound in the skull on the right side; and also on Cane Luigi, a mason aged forty-five, who suffered from a defect of the cranium over the posterior part of the temporal lobe. In the idiot the thermometer could be introduced in the direction of the fissure of Rolando; in the girl into the fissure of Sylvius; and in the last case the author tested the changes of the brain through a Marey's drum, comparing it with alterations in the circulation of the arm with the plethysmograph. In the idiot it was ascertained that strong motions and cries caused no rise of temperature in the motor region of the brain. In Delphina's case neither mental nor motor exertions had any influence upon the brain temperature, but emotions such as fear for the administration of chloroform caused a rise of temperature of 00.1. The return of consciousness after chloroform was not accompanied by any development of heat in the brain. In the third subject, the mason, it was shown that a pleasant mental excitement brought a larger flow of blood to the brain than simple speaking. The temperature in the rectum did not rise simultaneously with that in the brain. A small degree of apnoea causes a great increase in the volume of the brain. The alterations in the circulation in the brain and the ex-

tremities were not always of an opposite character to one another.

The author does not think that the plethysmographic curves in the brain are always dependent upon alterations of pressure in the arterial system.

Mosso has made some experiments upon normal and artificial sleep in man, dogs, and the winter sleep of marmots. He found that in this hibernating animal the brain had a lower temperature than the chamber in which it lay, nevertheless the temperature in the brain was higher than in the other organs, and chemical processes were more active. On applying mechanical and electrical stimuli to the brain of the marmot in the lethargic state there was a rise of temperature.

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*Paralisi Progressiva e Frenosi Sensoria, Lezioni Cliniche dettate dal Prof. L. BIANCHI.* (General Paralysis and Psychoses Originating in Disturbances of Sensation. A Series of Clinical Lectures delivered by Prof. L. BIANCHI.) Naples, 1895.

In response to the request of his students Prof. Bianchi has published these lectures. The subject of general paralysis of the insane absorbs rather more than one half of the brochure. Lecture I. treats of the etiology of the disease, and we note that, in reference to heredity, whilst recognising that, in the greater number of cases, no history of heredity of nervous and mental disease is forthcoming, the author regards neuropathic heredity as a factor of great importance, which in many cases is the only cause of the disease. Reference is made to the occurrence of general paralysis in families; in one family no less than 11 members were affected (Goldflam). Insolation is regarded as a cause, an instance being described. Some importance is ascribed to sexual excess. The author deals at length with the vexed question of the relationship between syphilis and general paralysis, detailing the views held by various writers, and adducing their statistics. He himself does not ascribe to syphilis the etiological importance claimed for it by certain authors. The following are amongst the considerations which he submits in reference to this question: The anatomical signs of cerebral syphilis are conspicuous by their absence in autopsies of general paralysis: the great increase in the disease of late years is

not explained by contemporaneous increase in the frequency of syphilis; the increase in the female sex cannot be due to the increase of syphilis in the latter, but is rather to be explained on the theory that women are partaking to a greater extent in the struggles of men; whilst general paralysis is rare amongst the Arabs, syphilis is not, it appears, rare; anti-syphilitic remedies are useless, or worse than useless, even though they remove syphilitic manifestations which happen to be present in the patient; neither clinically nor from an anatomico-pathological point of view is there any difference between cases with syphilitic history and those without. From the various considerations which he adduces the author is led to the conclusion that syphilis acts, in common with many other factors, rather as a predisposing cause, by weakening the resisting power of the nervous elements. The remaining etiological considerations with which this lecture deals call for no special reference here.

Lecture II. deals with symptomatology. The author distinguishes four classes, amongst which he recognises the exalted and the melancholic. In the third variety somatic symptoms are first noticed, or predominate—disturbances in cutaneous sensibility; but especially defects in spoken and written language—this is the most characteristic symptom. Later come tremor, and alteration of reflexes, and then the mental symptoms. The fourth group comprises cases in which (the health till then having been excellent) slight symptoms, attracting but little notice (such as giddiness, headache, confusion, irritability), appear, and are suddenly followed by an apoplectic or epileptic attack, to which succeed the usual symptoms of paralytic dementia.

Lecture III. deals further with symptomatology, and is illustrated by typical cases of the various forms of the disorder. Differential diagnosis is duly considered.

In Lecture IV. somatic symptoms are specially considered. In regard to the state of the pupils, certain results arrived at in the author's clinic are given, and are as follows: Out of 47 cases the pupils were equal in 27, unequal in 13. In 25 the pupils reacted to light and accommodation. Pupillary disturbances occurred in more than one-half of the cases. In about one-third differences in light reaction between the two sides existed. Diminished acuteness of vision was very frequent; it occurred in 40 out of 47 cases.

Colour-vision was also disordered. Various other results are also given appertaining to the state of the visual field and of the disc. Referring to the tendon-jerks, the author points out that their varying condition is related to the presence or absence of tabes, depending upon the time of appearance and course of the latter. It is pointed out that no less importance attaches to the abolition than to the exaggeration of the jerk. In the remainder of the lecture the chief of the manifold somatic symptoms of this protean malady are detailed.

Lecture V. deals with pathology and pathological anatomy. The rival theories of inflammatory and degenerative origin are discussed. We note that the author, whilst referring to the proliferation of the connective-tissue elements, and quoting Bevan Lewis as a supporter of the inflammatory theory, does not give the well-known views of this writer as regards the *rôle* of the morbidly developed connective tissue elements. We refer to the "scavenger-cell" theory. It is extraordinary that these suggestive views receive such tardy and scant notice from foreign observers.

The author remarks that the degenerative process which characterises the disease is not limited simply to the nervous system, but that all other organs are more or less involved. He quotes results observed in a large number of cases in his own institution in support of this statement. With regard to the kidneys, the frequency of lesions in them is duly recognised, and reference made to their influence in the symptomatology of the disease. It is not, however, contended, with certain recent writers, that the disease is essentially an arterio-capillary fibrosis. In the further observations upon the pathology of the disorder, with which Lecture VI. opens, we find nothing of special note. The author does not enter into such theoretical considerations as the possible bacterial origin of certain of the phenomena occurring in the course of general paralysis, such as haematoma auris, subdural haemorrhage, and of certain of the phases of the disease. Such controversial points are not, however, avoided on principle, since like matter is dealt with elsewhere in the work. We believe that these are questions which will demand careful study in the near future.

The question of differential diagnosis receives due consideration. So-called "pseudo paralysis" the author disbelieves in. He refers to two cases of hysteria in which

the diagnosis from general paralysis afforded real difficulty. The course of the disease is put at from a few months to ten or more years, these great variations depending upon the nature and chief *locale* of the disorder, and upon the resisting power of the individual.

With reference to treatment, the author records his opinion, which is in keeping with the general teaching, that mercury is of no use, and is sometimes harmful. Ergot is spoken of as a remedy of some benefit in "congestive states." Referring to trephining, the author remarks that a temporary relief of cerebral compression is the most that can be expected therefrom. The various methods employed at the present time for the relief of symptoms are related.

The second portion of the work is devoted to the subject of psychoses, "which originally and essentially are characterised by sensory disturbances (hallucinations and illusions)." After preliminary observations upon the distinction between sensory images and abstract ideas, and upon various hypotheses bearing upon the genesis of hallucinations—and in this connection the mechanism of physiological and subjective perception is, as far as our knowledge goes, explained—the author elucidates the general conception of the "Sensory Psychosis." This condition, always represented by hallucinations, principally auditory and visual, may sometimes for a certain period be exclusively so represented; subsequently abnormal intellectual and affective states are provoked. The malady, it is observed, has not been clearly delineated by systematic writers, having been confused with other disorders; some, indeed, do not even mention it. We are certainly not aware that in this country the group of symptoms described in these pages are accorded a distinctive place in nosology. The cases are divisible into three groups. The first comprises cases in which false perceptions are the starting point of the disease, which form the author calls "frenosi illusionale o percettiva." Secondary to this sensory disturbance the mind becomes disordered, with alteration of character, of the entire personality. Brains so altered may be said to be "vulnerable" at the outset, by reason of neuropathic heredity or excesses. In the second group are comprised cases in which a vivid hallucination surprises the mind, until that time acting normally, and in full vigour, apart from the predisposition already spoken of, which is present in most of these cases. Upon this is established a delirium, a stupor, or a melancholy; a veritable

systematised delirium may develop. In the above groups the sensory disturbance is intense; it is not at all necessary to the persistence of the mental disorder induced that this disturbance should be repeated. In the third group, individuals of mental constitution sufficiently strong are affected by hallucinations, not specially vivid, but variegated, and which may be repeated over a very long period without disturbing the mental organisation. From the numerous references to foreign writings, and from the author's own cases, it is clear that the most prominent variety of the "frenosi sensoria" (initial sensory disturbance, subsequent mental confusion, stupor) is identical with the state which in this country is designated "acute dementia." What the author particularly emphasises—in contradistinction to many writers—is that, if not in all, then certainly in the majority of cases, the confusional or stuporose state has been preceded by a period of hallucination. The duration of the confusional state varies from weeks to months, or even years. The author goes on to demonstrate that the primary hallucinatory state may give rise to a systematised delirium (paranoia), which teaching is altogether at variance with that of Krafft-Ebing. He differentiates between cases of paranoia in which the disturbance is primary, and hallucinations (if present) secondary, and those in which the primary disturbance is in sensory areæ, delusions arising secondarily therefrom. In the author's view the greater number of cases of paranoia belong to the latter group. The psycho-physiological mechanism by means of which it may reasonably be supposed the original sensory disturbance induces mental disorder is described, and a scheme is given which serves to show in graphic form the routes by which stimuli (neuro-luminous "waves") pass in ocular perception. This helps the reader to conceive the mechanism of perception, judgment, and reaction, and the corresponding nexus for hallucinations, mental confusion, delirium, and impulsive manifestations.

Turning to pathology, the author makes the interesting statement that from the blood of certain of these cases of acute sensory delirium ("frenosi sensoria acuta") pure cultures of *streptococcus pyogenes*, or, in others, of *staphylococcus aureus* were obtained, which produced death when inoculated into the cranial cavity of animals experimented on. The urine of these animals, injected into like animals, was fatal.

The concluding pages are occupied with differential diagnosis, prognosis, and treatment of "frenosi sensoria." The diagnosis is drawn between the sensory psychoses on the one hand, and mania, general paralysis, melancholia, paranoia, and acute delirium on the other. As regards prognosis, it is noted that the acute form of the disorder is a grave malady, sometimes threatening life. The recovery-rate is put at about 40 per cent. Apart from recovery or death the disorder passes into dementia or secondary paranoia.

From amongst the therapeutic measures suggested we single out electricity, in the form of galvanisation of the head, and general faradisation, as worthy of note in refractory cases.

Having endeavoured in these observations to portray the scope of Professor Bianchi's recent contribution to psychiatric literature, it remains for us to pay a tribute to the intrinsic merit of the work.

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*The Growth of the Brain.* By H. H. DONALDSON, Prof. of Neurology, Univ. of Chicago. W. Scott : Lond., 1895. 8vo, pp. 374. Contemporary Science Series.

This work is a very useful compendium of the facts relating to the growth of the brain, with concluding chapters on fatigue, old age, and education. The work is illustrated by upwards of seventy plates and by nearly as many tables, the majority of both being authorised reproductions from standard authors to whom the author has universally given quotation.

Commencing with an introductory chapter on growth in its widest aspects, he passes on to the facts relating to the increase in weight of the whole body, followed by a chapter on the weight increase of different parts of the body and on increase of stature. The weight of the brain and spinal cord is next dealt with, increase of brain weight, the variations of brain weight and of cranial capacity each occupying a chapter.

The nerve elements, their development and arrangement are next considered, together with the architecture of the nervous system and the changes in it due to growth.

Localisation of function, physiological changes in the central system, physiological rhythms, and old age, are each treated of in separate chapters.

The facts thus compiled being already well known, offer no room for criticism, but the author may be congratulated on the very systematic manner in which they have been arranged, on the clearness and conciseness with which they have been stated, and on the general suggestiveness that pervades the book. He has been careful, too, to point out, in many places, defects of observation, and gaps in our information that require to be filled up.

The mass of facts and information relating to the brain thus brought together, constitute the work a very handy book of reference, not only to the parent, teacher, and physician, to whom the author considers his work specially directed, but also to the medico-psychologist.

### PART III.—NOTES AND NEWS.

#### MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

##### GENERAL MEETING.

A General Meeting of the Association was held on May 21st, at 11, Chandos Street, London, David Nicolson, M.D., President, in the chair.

The minutes of the last meeting (held at Cambridge) were read by Dr Fletcher Beach, Honorary General Secretary, and confirmed.

##### DISCUSSION ON PSEUDO-GENERAL PARALYSIS.

Dr. Hyslop's paper, read at the last meeting, was discussed at Cambridge as follows:—

Dr. SAVAGE—When the question of pseudo-general paralysis appeared upon the paper, at once one had to define what one understood by pseudo-general paralysis. My first thought, and perhaps the thought that still remains with me, was this: Cases of pseudo-general paralysis are those where I had made a mistake in diagnosis—cases where I dogmatically said a patient would die in two or three years, and they are still living after many years. There are many such cases, and the more we see of the earlier stages the more difficulty we find in coming to a correct diagnosis. Next as to the question of pseudo-paralysis described by the French. They have got pseudo-paralysis and pseudo diseases of one kind and another, and I think with Dr. Hyslop it would be a very good thing if we could limit the true and get rid of the false. General paralysis of the insane I believe to be a degeneration. I think there are certain types which we must recognise. My favourite teaching simile is that, looking at general paralysis of the insane as a degeneration, one has to remember that the evolution, the development of things, depends upon the environment as well as the starting point. One is obliged to recognise that each bodily organ has its own method. In old days everybody who died by lung diseases and had a cough, therefore had phthisis. We know now there are many other forms of such degeneration. So one feels in regard to degeneration of the insane so-called, we have other forms of degeneration which we shall in future separate, and it is well papers so ably brought forward as that by Dr. Hyslop should be considered by us. I do not say the term general paralysis is of a satisfactory kind. Still it is a term that we understand and can employ until we get a better one. We say they are suffering from softening of the brain, meaning hardening; we say they are suffering from brain paralysis when we are talking to lawyers, because they understand that;

and if we are talking to one another we call it G.P.I. We do recognise it is not an entity ; it is a group of symptoms. But we cannot do without the term at present.

Dr WIGLESWORTH—I think Dr Hyslop has brought an important subject before us to-night, because we know many cases are put down for general paralysis, but which recover, and which prove eventually not to be such. Some alcoholics, for instance, present in practice most puzzling cases to diagnose, and I was in hopes Dr. Hyslop would have furnished us with some diagnostic marks which would assist us in coming to a conclusion in such cases. I am afraid so far we have not had much assistance in this respect. We should recognise the fact that there are cases which put on an appearance of general paralysis, and which eventually turn out not to be such. But I wish to run counter to one general opinion in the matter, and that is that true general paralysis can never be cured. The opinion seems to be, if a case presents certain features, goes into an asylum, is diagnosed as general paralysis and gets better, that case is not general paralysis. I don't agree with that. I have seen cases come into an asylum and become practically well, that is to say all signs of general paralysis have disappeared, but the patient has not been perfectly well. I am not referring only to cases which have gone out, but also to cases which one hardly felt justified in discharging. I have known cases in which you could hardly feel justified in discharging the patient, though there has been the slightest amount of dementia and there has been an entire absence of all signs of general paralysis. I have known cases to die in the asylum even as long as 20 years afterwards, which have pathologically shown limited signs of general paralysis, and I have known other cases which have gone out and which have remained well certainly for years. I consider such cases are practically recoveries. Therefore, when we make the sweeping assertion that because a case gets well, therefore it is not general paralysis, I don't think that helps us at all. There is another point in which I should rather join issue with Dr. Hyslop. He referred to cases occurring in children about the time of puberty, which present certain signs of general paralysis, and he said he could not see why they should be classified as such ; they should be called syphilitic cases. I should like to know why. Why are they not to be considered general paralysis ? Is it because of the age ? Clearly that would not be scientific reasoning. I refer to cases I have observed, and where after death the lesions of general paralysis have been found. How are we to resist the conclusion that they should not be so classified ? Dr. Hyslop apparently does not consider them syphilitic diseases. I must say, whatever name we give it, general paralysis is a disease we ought to include in our neurology. To every name some exception may be taken and "general paralysis" will perhaps serve as well as any other.

Dr. SHUTTLEWORTH—Mr. President, there is just one point to which the previous speaker, Dr. Wiglesworth, has alluded, of which I have had some experience which may be interesting, and that is cases of inherited syphilis occurring amongst children. I am afraid I am not competent to say what are and what are not the pathological appearances of general paralysis ; it seems to me to cover a great number of symptoms, and perhaps the pathological appearances may vary to a considerable extent ; but having seen some cases of post-mortem of children who suffered from juvenile syphilitic dementia, one met in two or three cases with similar symptoms in which there was considerable thickness of the cerebral membranes and considerable atrophy of the brain substance. The cases varied very considerably in the time during which the symptoms were evolving. They occurred usually at the age of 12, 13, and 14, and so on, in children who up to that period had shown a certain amount of mental power ; then came a period of mental enfeeblement, during which they lost all the knowledge they obtained at school ; and finally they lost not only mental power, but displayed some degree of paralysis. Some of these cases which I left behind me at the Royal Albert Asylum, had certainly been in that state, without any great progression, for 7 or 8 years. I don't know whether they are dead, but what I want to lay stress on is that in every case one was able sooner or later to work out a psychological history.

The adjournment of the debate to the next meeting was proposed by Dr. HAYES NEWINGTON and seconded by Dr. RAYNER.

The PRESIDENT, on rising to put the resolution, said—There is no doubt, whether pseudo-general paralysis is an entity or not, it is quite evident it is a very considerable quantity, and an unknown one apparently, and a subject for discussion, sometimes not very fruitful, but always encouraging to investigators. I am bound to say I do not quite like Dr. Savage's swamping it under the term of "degeneration." That term "degeneration" seems to be so unhelpful to us in arriving at any notion of the pathological condition that may be discoverable after death, or the symptoms which may be exhibited during the extended period when the patient is resisting the programme of carrying out his demise within the period allotted to him by the consulting medical officer. I have always regarded general paralysis of the insane in all its collateral development as the very hotch-potch of nervous pathology, but I am quite willing to put the resolution, that Dr. Hyslop's paper be discussed by adjournment at the meeting to be held in London in May.

The resolution was carried.

In answer to the discussion, Dr. HYSLOP said—I think the only point, if there was any point in the discussion, was the objection taken by Dr. Wiglesworth, in which he said it was not exactly warrantable to consider a case as not a case of general paralysis because it recovered. I employ the term "general paralysis" in contradistinction to special paralysis. I think I distinctly laid it down, and the only exemplification I know of true general paralysis is the condition of dissolution immediately preceding death. I don't understand the term "general." The cases that recover or go on for a lengthened period, go on with special paralysis. It is not, truly speaking, general paralysis. Anything that does not favour this rule of "general" I consider to be more or less special, and so long as they are included under the term "general" they are pseudo general.

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The discussion was re-opened, on 21st May, by Dr. HAYES NEWINGTON.

Dr. HAYES NEWINGTON—Mr. President, I do not suppose that any of us—even Dr. Hyslop himself—will expect any practical good to arise from the discussion on this subject, which he so ably introduced; but I think we may all expect some indirect benefit to be obtained by recording the large amount of dissatisfaction and unrest with which our present relations to so-called "general paralysis" are mixed up. I do not refer to the scientific or the pathological aspect of the matter, because on every important point of this nature there must always be unrest until we reach the end—which is not likely to be; but with regard to the social or prognostic side I do think that most of us feel highly dissatisfied. We rather shirk accepting the proposition that general paralysis is progressive and fatal. We think—at least I do—that where we get such a terribly definite predicate as fatality and the almost as terrible predicate of progressiveness, the subject should be equally definite; and it does seem to a good number of us to be rather a strong thing to accept as final the verdict on such a very unsatisfactory basis. Dr. Hyslop has put before us all the forms that imitate general paralysis. Dr. Wiglesworth took other ground, if I remember rightly, and said that all these forms were general paralysis, but some of them were recovered from. I should like to ask on what grounds we can positively assert that all general paralytics must be insane. All we go upon is experience. We take the question of prognosis from experience; and I think it is hardly right to use experience as a means or a method or a tool with which to cut off the possibility of further experience. Because we have not yet found that general paralysis is usually curable it does not follow that it may not be so in time, for surely the type is altering and spreading. In the old days it was tolerably definable and restricted within certain limits; now it is spreading, not only with regard to its symptoms but also with regard to the people it attacks. It is spreading as to the class of people and especially the age of the victims; it is spreading up and it is spreading down. On these grounds alone I think we ought to be careful before we lay down such a

terrible proposition as that general paralysis is invariably and necessarily fatal. I am the rather encouraged to take that ground because in studying Dr. Clouston's definition of this disease I see that he winds up with the words "*as yet* incurable," as much as to say that there is a possibility of cure. We all trust there may be.

Dr. GOODALL—With regard to the first question that Dr. Hyslop puts to us, whether the term "general paralysis" is entirely satisfactory, I am not myself disposed to think it is: and I should prefer the term of "progressive paralytic dementia," as bringing us more into accord with the terms used on the continent, and also, I think, expressing more faithfully the nature of the disease. I think that at present general paralysis or progressive paralytic dementia must be regarded fairly as a disease like Bright's disease, a term used collectively just as that term is used. Under that term, as is well known to us all, there are several varieties of morbid kidney described—cystic diseases of the kidney, granular disease and congestive conditions, large white kidney and so forth. So under the term "general paralysis" I think there are various forms included at present which later may be differentiated. In the earlier stages of Bright's disease, no doubt, there is considerable difficulty in describing the various symptoms, localising them, and referring them to particular disorders or states of the kidney. Gradually that has been done, so that in respect of etiology, clinical symptoms, pathology and morbid anatomy, the study of Bright's disease is fairly satisfactory. The same could not be said about general paralysis in all these respects. More work, I think, should be done so as to make the knowledge of the subject more exact. On page 304 of the Journal Dr. Hyslop quotes a statement that "general paralysis is as distinct from any other disease as small-pox is from scarlatina." I do not agree with that. It may be distinguishable, but not quite so easily. The clinical types in general paralysis are naturally a good deal more difficult than in Bright's disease, seeing that the brain is so highly complex. Various parts may be affected, so that the different types of general paralysis may be numerous and complicated. It may be that some of the acute types run a rapid course, and also that some phases of the disease, such, for instance, as extravasation of blood in the brain, and possibly also epileptiform convulsions, may be due to the action of micro-organisms, which might possibly differentiate a particular form of the disease. But in order to help us to get a more exact knowledge of the pathological processes obviously it is highly necessary that post-mortem examinations in early cases should be obtained. Unfortunately in large County Asylums death occurs at an advanced stage when everything is almost at dissolution. I think, however, that in certain County Asylums differentiation is not a matter of such great difficulty as it is in hospitals like Bethlem, because in several asylums, especially those in the West Riding of Yorkshire, the type seems to be becoming dementia, rapid degradation, running down to paralysis of mind and body. As a matter of fact the prognosis is pretty easy, and differentiation of the disorder is pretty easy; whereas, I fancy, in a more highly educated person the differentiation and prognosis would be a matter of more difficulty. Lately I have been studying a work by Prof. Bianchi. He is very jealous of this term "pseudo-paralysis," chiefly, I think, because he is inclined to believe that new diseases have been foisted upon it. Dr. Hyslop was careful to say he had no intention of introducing a new disease. I think Prof. Bianchi would have to admit that, since in his work he discusses disorders which simulate general paralysis. Incidentally, in conclusion, I would say that Prof. Bianchi is not inclined to attach so much importance to syphilis as a cause as many writers do. He considers that syphilis may only act like so many other factors, on constitutions predisposed to the disorder, and I am disposed to agree with him.

Dr. BONVILLE FOX—I cannot but think that Dr. Hyslop sets up too exhaustive a series of requirements for the disease he styles general paralysis. Is it a disease in which disorders of motility must sooner or later affect the system generally; or is it a disease in which disorders of motility may very possibly affect the system generally? In all probability, if the patient lives long enough they will, but I believe it is by no means necessarily the case that they must. Four years ago there was a case of general paralysis under my care with slight

tremor of the lips, a little lingering articulation, but no other disorders of motility. So slight, indeed, were the symptoms that a Commissioner, whose opinion as a scientific man we all respect, doubted very greatly whether the diagnosis was correct. Three years ago a case was under my care of a man who was stretched out helpless, unable to move arms or legs, unable to defecate, unable to relieve his bladder, unable even to swallow when his pharynx was irritated. This very morning I saw a man with very marked defect of articulation, so much so that you could hardly understand him, but able to walk for a couple of hours in such a way that I will undertake to say it would try the powers of most of those present to keep up with him. Which of these cases was general paralysis? Or were not all of them general paralysis? I believe they were, for they all occurred in the same man. I have spoken of the same patient at different periods, and I have instanced his symptoms in the order in which they occurred. The helpless log of three years ago surely exhibited general paralysis if ever a man did, for the only centres that, so far as I could see, were not paralysed were those of his respiration and of heart; everything else nearly was paralysed. I admit that there are still many symptoms of general paralysis. But are we to deny to the man now in his later condition the name that we should all have accorded to him three years ago? Surely not. We do not in other diseases expect to get the whole repertory of classical, typical, pathognomonic phenomena in each particular case. (I do not in the least wish to misconstrue Dr. Hyslop's definition.) For example, if in a case of pneumonia we do not get herpes labialis, we do not in the least deny that it is pneumonia, because that one symptom, which is sometimes present, is absent. I am, therefore, inclined to think we should be wide in our definition of general paralysis of the insane. I do not for a moment assert that it is a scientific term; but I believe it is a convenient term which has passed into general acceptance, and which most of us recognise as meaning a certain class of disease. If I may for a moment criticise Dr. Hyslop's term of "pseudo-general paralysis," I would say that it seems to me we do not gain very much by adopting it. I fully agree with him that there are many mental diseases which most closely simulate general paralysis—and he has described them very accurately—such as alcoholic pseudo-general paralysis, saturnine pseudo-general paralysis, and one or two others. But why should we call it alcoholic *pseudo-general* paralysis, etc.? It seems to me the description would be equally clear and certainly scientifically more accurate if we were to drop the "pseudo" altogether out of the definition and speak of the symptoms as those of alcoholic paralysis. I admit it is impossible in some cases to tell whether a patient is suffering from alcoholic paralysis or general paralysis. But time, which is the great elucidator as well as the great consoler, will clear up the matter if the case is one which will allow of an accurate diagnosis; and I fail to see what we gain by christening cases that resemble general paralysis, but are not cases of that affection, by such a term as alcoholic pseudo-general paralysis instead of simply using the designation alcoholic paralysis. At the same time I am far from desiring to express myself dogmatically. I fully admit that there are various considerations which complicate our definition of the disease and which greatly complicate our prognosis of the disease. For example, we all recognise that general paralysis may be coincident with tabes and with peripheral neuritis; but I think it is altogether unfair to say that a man who has had tabes and been suffering also from paralysis is the victim of general paralysis of the insane all the time he has spinal symptoms. That the one disease should merge into the other is, I am bound to say, hardly extraordinary when we consider how closely the different parts of the nervous system are connected. It is always to me rather a wonder that we get the symptoms of different nervous diseases so clearly defined and distinct as we do.

Dr. SOUTAR—Dr. Hyslop, of course, must have been prepared for criticism, as he has struck out new ground, and I, too, must join with Dr. Fox in a criticism of Dr. Hyslop's attack upon the term "general paralysis." It seems to me that he has raised an altogether unnecessary difficulty. He seems to think that the term "general" is synonymous with "complete," for he argues that general paralysis exists only in the stage immediately

preceding death. But I think that in so doing he gives an altogether unusual meaning to the word. The term "*general* paralysis" does not convey, and is not meant to convey, any indication of the *degree* of paralysis, it is simply a convenient term for indicating the fact that we have to deal with a paralysis not only of the body but of the mind as well, a paralysis which is *general*, that is to say, in that sense, that you have an implication both of body and mind, and in no other sense is it used in the general acceptation of the term. I, therefore, think that "*general* paralysis" happily indicates the consideration, and is certainly quite as useful as the one suggested by Dr. Hyslop. We have then in the word "*general*" simply an indication of the dual implication of both body and mind; that is, *general* paralysis is a form of enfeeblement in which both the mental and physical functions are affected. Of course this view does not necessarily strike at Dr. Hyslop's main contention, namely, that we probably include in the term "*general* paralysis" several diseases which differ from one another in certain features; and, of course, it is an extremely laudable task to attempt to distinguish these diseases one from the other. It seems to me, however, that the principal value of Dr. Hyslop's paper in this connection is that he has demonstrated that, even under his very competent guidance, we have not proceeded very far in effecting a differentiation such as he desires. He gives examples of what he calls "*pseudo-general* paralysis," that is to say, of cases which simulate *general* paralysis, but which in his opinion are not cases of *general* paralysis. But what do these cases show? They simply show this, that alcohol, lead, syphilis, fever, malaria, and sunstroke induce, in a certain number of cases, a degradation of the nervous system which is undoubtedly *general* in the sense that you have both body and mind affected. But Dr. Hyslop goes on to say that the point of distinction between these "*pseudo*" cases and the true cases of *general* paralysis is that you have in one set the disease arrested, whereas in the other it proceeds to death. But the first point that has to be established in a contention of that kind is this, that it is impossible to have an arrest of true *general* paralysis; and I do not think Dr. Hyslop establishes that contention. I think he fails to show that there is any necessity for calling these cases "*pseudo-general* paralytics," for it is quite clear that if an arrest can take place, and does take place, those cases of "*pseudo-general* paralysis" are simply cases of *general* paralysis in which the disease has been arrested. I am, of course, aware that in some of the definitions of the disease which we have it is dogmatically laid down that the end of the disease is death in a comparatively short time. But then Dr. Hyslop is certainly outside the protective pale of these definitions, because we have in his paper something absolutely or almost entirely of the nature of a revolt against these accepted definitions. I think the question he has really raised is not whether these cases are cases of *general* paralysis, because unless the word is unduly perverted the cases are those of *general* paralysis; but the question is, Do we ever find arrest in a true case of *general* paralysis? Undoubtedly we find that in a good many cases of true *general* paralysis, cases which run the true and orthodox course, certainly alcohol and syphilis and malaria, and more doubtfully sunstroke, are the only ascertainable causes of the disease. So if in a certain set of cases we find that some causes induce true *general* paralysis, and in another set of cases we have induced these "*pseudo-general* paralyses," we must have great difficulty, I think, in accepting Dr. Hyslop's conclusion until he has demonstrated that there never is an arrest of *general* paralysis in the true sense. My opinion, then, is that we had better stick to "*general* paralysis" as a well understandable term, one that includes a group of diseases in which we have enfeeblement both of body and mind, and is therefore *general*; but that perhaps — and I think Dr. Hyslop's paper strongly suggests this — we must be prepared, to some extent at all events, to modify our idea that *general* paralysis is inevitably a disease that proceeds to complete and absolute dementia and paralysis.

Dr. MERCIER—Dr. Soutar is correct when he states that Dr. Hyslop uses the word "*general*" in connection with *general* paralysis in a misapprehension for "*complete*." By a *general* paralysis Dr. Hyslop means a *complete* paralysis. I think there are very few of us who agree with him in accepting that meaning of

the term. Dr. Soutar, however, uses "general" to mean "dual," which seems to me a still greater departure from the original sense of the word than Dr. Hyslop's. I have always understood "general paralysis" to mean a paralysis that was not necessarily complete, that certainly was not necessarily dual, but that was general, that is to say, a paralysis which affects more or less the whole voluntary muscular system of the body, and which follows, of course, the classical course in affecting first and most those portions of the muscular system which have the most definite centres; while those that are least and last affected are those which are the most general. That is what I understand by "general paralysis." As for a paralysis affecting the mind, that is a metaphysical notion, coming from a north country channel which I would be very sorry to attempt to criticise.

Dr. ANDRIESEN—I think we are indebted to the French school of observers more particularly for clearing away some of the misconceptions as regards certain of the superficial symptoms of general paralysis, and especially to Magnan. He lays very great stress indeed upon what he calls the fundamental and the episodic characteristics or symptoms of general paralysis. The fundamental characteristics run through every case of the disease, whatever the clinical type. The case may at one time show symptoms of melancholia, at another of mania, and at other times may be suffering from a more gross form of subacute delirium with loss of flesh, slight febrile temperature, offensive breath and dirty tongue; and I have no doubt in connection with such cases the investigation of the urine, the intestinal canal, etc., should be followed out to ascertain if some micro-organism is at work. Experience of other diseases teaches us that they may from time to time show symptoms of various kinds; but that does not prevent us calling a case of phthisis by that name, because, after running a certain course with certain symptoms, it may towards the termination be complicated with other conditions and have other organisms in the lungs than the specific bacillus. With regard to general paralysis, the fundamental features are the gradual and progressive deterioration of the mental faculties, side by side with which is more or less of a corresponding degradation of the movement functions of the body. One recognises that both these functions are localised in the brain in more or less adjacent and overlapping areas. One need not therefore be surprised that this should be the case. And further, when one notices that the term "chronic diffuse parencephalitis" has been used, especially by German observers, instead of "general paralysis," and when one finds that in every case where a post-mortem has been made there are distinct evidences invariably of more or less diffuse chronic parencephalitis, one cannot help admitting that there is a disease which runs a very definite course fundamentally, the main features of which I have described. All other conditions should, I think, be considered as Magnan calls them, episodic symptoms, because they need not necessarily occur. In certain types of general paralysis it is only the fundamental symptoms that are observed; the mania, melancholia, hallucinations need not be present. So, too, with congestive conditions and the discharges from the lower centres which produce epileptiform convulsions. With regard to the term "pseudo-paresis," it is a convenient one for purposes of speech; language is not so rich that we can afford to dispense with it. But one cannot say that the somewhat heterogeneous group of conditions included under that term deserves distinction into a separate group; whereas general paralysis has a very characteristic physiognomy, clinical, etiological, and pathological, of its own. Therefore I think it would be a mistake, and rather late, considering what has been done, for observers to attempt to upset the theory of the clinical and pathological entity of general paralysis of the insane.

Dr. BLANDFORD—I had not the pleasure of hearing this paper read at Cambridge, but I have read it since. I do not look upon it as indicating any wish on Dr. Hyslop's part to set up a new nomenclature and call syphilitic insanity or alcoholic insanity a pseudo-general paralysis; but I look upon it as a protest against calling everything general paralysis, from the disease which attacks a boy of twelve up to that which attacks a person of seventy. It appeared to me Dr.

Hyslop's intention was to protest against that and to mention certain forms which simulate general paralysis, but which are not general paralyses in the ordinary sense of the word. And I think it extremely important we should do this. Dr. Blandford then dwelt on the necessity for correct diagnosis, and added : I am bound to say that the longer I live the greater difficulty do I find in doing so in these cases. Thirty years ago I thought there was no difficulty in diagnosing general paralysis, but I find a very great deal of difficulty now. Of course, merely looking at the patient perhaps for a quarter of an hour or so is not sufficient. It is very important we should get at the history of the case, and approach it from all sides. It is very important we should arrive, if we can, at an accurate diagnosis, because a great deal sometimes depends upon the diagnosis and the opinion we give whether we are quite sure that it is a case of brain degeneration from which the patient will not recover. It is very important for the sake of the friends that we should be able to tell them how long the patient is going to live, and whether he is likely to be violent or go off in acute mania, which we so often find in general paralysis, or whether it will be a gradual degeneration and decay so that he may be taken care of anywhere with proper assistance. Now, when we come across a case of alcoholic insanity, for instance, we may go extremely wrong if we call that a case of ordinary general paralysis. Dr. Blandford quoted a case of alcoholic insanity, brought to him as general paralysis, which had deceived some of the best observers in the specialty, and added : I merely mention this to show the difficulty of diagnosing these cases and to show the importance of arriving at a correct diagnosis. The doctors in this instance were kept in the dark with regard to that, and only based their opinion on the patient's condition as they saw him before them.

Dr. HYSLOP—Many observers assume that if there is one thing certain in our specialty, it is that general paralysis is an entity and a disease described as such. On questioning such observers one finds there are but slender arguments in favour of this notion. The main thing is, it is a question of convenience. It is a very convenient term. I look upon it as being absolutely a dustbin for the reception of all they cannot understand. The question as to what general paralysis really is has been discussed, and nobody present has answered the question. Dr. Soutar says he understands by the term an affection of the body and of the mind. If that is the meaning of "general paralysis" then I must own that every mental affection we know is general paralysis, because I know of no mental affection in connection with which we do not assume there is a bodily affection. Dr. Mercier says my notion of "general" is too wide (Dr. Mercier : "No, No"). I understand Dr. Mercier has a special idea of his own as to what is meant by "general."

Dr. MERCIER—No. I merely said "general" meant "general."

Dr. HYSLOP—Then I would ask some definition of "general." You may assume that "general" is to be taken in the Jacksonian sense, and one has nothing to say against that theoretically, but in that case how are we to distinguish such conditions as amyotrophic lateral sclerosis, progressive bulbar paralysis, etc., associated with mental symptoms, if we hold the entity notion of general paralysis. There has been no argument given so far in favour of that condition being general. I do not think anyone here has seen a case which is truly general. I know of no spinal lesion, except a diffuse myelitis, and have never seen one in which all the tracts have been affected, in which one could say definitely the paralysis was general. Therefore on these grounds I certainly do quarrel with the term. To some people's minds it has been quite sufficient to establish the entity of the condition to discuss the halo around that condition of mental exaltation, but you may get the same halo in anyone suffering from any mental paralysis that you sometimes get in so-called cases of general paralysis. A progressive paralysis treated in a general hospital is treated as such and regarded as a special paralysis, but directly mental symptoms supervene, the patient loses control or shows a certain amount of general exaltation ; at once he is removed from the general hospital and relegated to the alienist dustbin as a case of general paralysis, a condition which is regarded definitely as an entity. I quite agree that it is a very convenient method ; but when we class such patients as general paralytics we argue from our

knowledge of a large number of cases that the patient will probably die in the course of two or three years, and apply that general knowledge, derived from various sources, to the special case in hand which may be totally different. For a good many years I have been looking for a case that I could honestly regard as being one of general paralysis, and in not one case have I been able to satisfy myself that I have seen symptoms during life that would indicate general paralysis. I have seen indications of various progressive lesions, ascending lesions, descending lesions, and lesions beginning in various parts of the cerebro-spinal system, but I have not come across a case that I could definitely regard as being one of true general paralysis. I have seen cases of death, and that, as I pointed out, has been the only indication. As to the question of this being a collective term, Dr. Goodall pointed out that we classed under the general term "Bright's disease" various conditions of the kidney, with which I quite agree; but so long as we regard these different varieties as one disease and call them Bright's disease we do not gain much. We may well understand in what a glorious state of uncertainty would be the physician of a general fever hospital who made a hotch-potch of such different conditions as typhoid fever, small-pox and measles, as we do now in the case of general paralysis, and treated them by the application indiscriminately of his general principles. That is precisely the state we are in now with regard to general paralysis. We are not able to give a prognosis simply because we do not study and differentiate the different conditions of which this so-called entity is made up. I think Dr. Blandford was the only speaker who gave me credit for not wishing to describe by that name any case which might be called pseudo-general paralysis. I merely wish to point out that there are various toxæmias and paralyses which appear to be like general paralysis, but are not examples of that condition; and if we followed out that plan of calling the different cases what they are, dropping the "pseudo," it would be more scientific. It would be very interesting indeed to study all these cases and eliminate all the special forms of the disease and see what we have left of general paralysis by the time we had done so with syphilitic, alcoholic, and the other paralyses referred to. There might be a trace of the so-called entity, but, I fancy, not a very substantial trace. I am afraid therefore that as yet arguments given in favour of the entity theory, and the arguments adduced against my paper, do not carry conviction to my mind. What they do with others, of course one cannot decide. I have been several times asked since I read my paper what good can possibly accrue from destroying faith in this convenient disease about which we have general principles to guide us in dealing with the friends of patients. What, I have been asked, are you going to put in its place, and what are you going to call the disease? I do not propose to substitute any other term for so-called "general paralysis." What we have to do is to define its numerous contents and then name these contents accordingly; and when we have done that I think there will be absolutely no use for any such expression as "general paralysis."

The PRESIDENT—I am sure, if the question were put, of what use has Dr. Hyslop's paper been? we have had abundant evidence this afternoon that it has stimulated thought and encouraged philological discussion as to the meaning of terms and their origin, and many of us at any rate will not be any the worse, on the contrary most of us will be much the better for having heard the learned points raised, if not solved, by Dr. Hyslop's paper.

Dr. ROBERT JONES then read "A short account of Claybury Asylum (the first new Asylum of the London County Council) and the history of its first year."

Dr. RAYNER—Our thanks are due to Dr. Jones for giving us such a careful history of the growth and development of Claybury Asylum. To hear of such perfection in all its arrangements makes those of us who perhaps have served in rather old buildings envious of Dr. Jones for having such a splendid place. Those of us who have had to deal with large numbers of patients must congratulate him on having been able to conduct the admission of two thousand patients without meeting with any serious mishap or any regrettable incident.

A paper by Dr. MERCIER on "Medical Reticence" was to have been read at

the meeting; but on the suggestion of the Honorary General Secretary, Dr. Mercier consented to its being postponed till the Annual Meeting.

The following gentlemen were elected members of the Association:—George Beamish, L.R.C.S.I., L.R.C.P.E., L.M., Medical Officer, H.M. Prison, Liverpool; John W. Geddes, M.B. and C.M.Edin., Assistant Medical Officer, Durham County Asylum, Winterton, Ferryhill, Durham; Robert Wilson, M.B., C.M.Glas., Nailsworth, Gloucestershire.

### SPRING MEETING OF THE SCOTTISH DIVISION.

A meeting of the Scottish Division was held in the Hall of the Faculty of Physicians and Surgeons, St. Vincent Street, Glasgow, on Thursday, 12th March, 1896.

Present—Dr. Carswell (Glasgow), Dr. Margaret C. Dewar (Dumfries), Dr. Edgerley (Melrose), Dr. Havelock (Montrose), Dr. Hotchkis (Glasgow), Dr. MacDowall (Morpeth), Dr. Macpherson (Larbert), Dr. Oswald (Glasgow), Dr. Alexander Robertson (Glasgow), Dr. G. M. Robertson (Murthly), Dr. Turnbull (Hon. Sec.), Dr. Urquhart (Perth), Dr. W. R. Watson (Govan), and Dr. Yellowlees (Glasgow).

On the motion of Dr. YELLOWLEES, Dr. MacDowall was called upon to preside.

The minutes of the last meeting were read and approved.

The Secretary submitted applications for admission as members from Hamilton C. Marr, M.D., Senior Assistant Physician, Woodilee Asylum, Lenzie, and William Cardiff Hossack, M.B., C.M., Assistant Physician, District Asylum, Inverness. On being balloted for these gentlemen were unanimously elected members of the Association.

#### MEMBER OF COUNCIL AND DIVISIONAL SECRETARSHIP.

On the motion of Dr. YELLOWLEES it was agreed that the name of Dr. Watson (Govan) be suggested to the Council for election when filling up the next vacancies on the Council; and that of Dr. Turnbull (Cupar-Fife) for the Divisional Secretaryship.

#### PENSIONS SCHEME.

Dr. URQUHART submitted a report, prepared by Mr. J. A. Robertson, C.A., Edinburgh, for the Pensions Committee, and suggested that a copy should be sent to the Council by the Divisional Secretary, with the request that the matter should be placed on the agenda paper of the next Annual Meeting, as having the approval of the Scottish Division.

After some conversation this was agreed to, and on the suggestion of Dr. TURNBULL it was resolved that Mr. Robertson's report should be printed, and a copy sent to each member of the Scottish Division.

#### CARLISLE MEETING.

Dr. TURNBULL, for Dr. Carlyle Johnstone, intimated the arrangements for the Annual Meeting of the British Medical Association at Carlisle, and hoped that there would be a good attendance from Scotland.

#### FORMS FOR CASE TAKING AND FOR OTHER ASYLUM RECORDS.

Dr. URQUHART submitted forms which he had prepared for case taking in the admission room and in the wards—a scheme for case books and a card index to cases. He also laid on the table various charts and lithographs procurable from Messrs. Daniellson; and a chart for recording mental states devised by Dr. Watson, of the Winson Green Asylum, Birmingham.

#### COLLECTIVE INVESTIGATION COMMITTEE.

Dr. G. M. ROBERTSON submitted the proposal by the Collective Investigation Committee that "Statistics and Types of Epileptic Insanity" be the subject adopted for examination, and said one of the recommendations agreed to at the last meeting of this Division was that the suggestions of the Collective Investigation Committee should be printed on our agenda paper. The reason of the

present suggestion is that at the last Annual Meeting of the British Medical Association Dr. Gower asked that such facts should be collected. If the Division is willing that this investigation should be made, forms might be drawn out relating to the subject. The statistics can be got to a large extent from the Annual Reports of our asylums, probably all the statistics that are required as to the forms of insanity that epileptics labour under, and also facts relating to dementia and fits, and as to whether insanity replaces fits, and at what period the patients suffer from acute symptoms as indicated by Dr. Gower.

The CHAIRMAN—I hope the Committee will not go to Annual Reports for information on anything.

Dr. YELLOWLEES—Epileptic insanity is a very vague expression. We know that there are people who take fits every six or eight weeks and labour under a greater or less degree of mental weakness; but there are others who have fits, one in a year or in two or three years, and you may not know that a patient ever had them. Are these cases of epileptic insanity?

The CHAIRMAN—I think not.

Dr. YELLOWLEES—They are far more frequent than we are apt to suppose.

The CHAIRMAN—Would you wish this suggestion sent up to the Council?

Dr. TURNBULL—It was intended that the gentleman who proposes a subject for investigation should act as secretary; and if Dr. Robertson would be willing to issue the questions to the members of our Division it would ensure the present proposal being carried through.

The CHAIRMAN—You will be glad to do that, Dr. Robertson?

Dr. ROBERTSON—Yes, certainly.

After some conversation Dr. Robertson's proposal was adopted.

On the motion of Dr. YELLOWLEES a hearty vote of thanks was given to Dr. MacDowall for presiding. The members afterwards dined together in the Windsor Hotel.

#### MEETING OF THE IRISH DIVISION.

A Meeting of the Irish Division was held at the Richmond Asylum, Dublin, on May 7th, 1896. There were present Dr. Hetherington (Londonderry), in the chair, Dr. Garner (Cloumel), Dr. O'Neill (Limerick), Drs. Finnegan and Elizabeth Moffett (Mullingar), Drs. Patton and Dawson (Finglas), Drs. Eustace and Henry Eustace (Glasnevin), Drs. Conolly Norman, O'C. Donegan, H. C. C. Cullinan, D. F. Rambaut, E. L. Fleury, Dr. Burke (Dublin), and Dr. Oscar Woods (Cork), Hon. Sec.

The following gentleman having been proposed for membership, was balloted for and unanimously elected:—Thos. Adrian Greene, L. & L.M.R.C.S.I.; L. and L.M.R.C.P.I., Assistant Medical Officer, District Asylum, Ennis.

#### MORNING MEETING.

Dr. CONOLLY NORMAN said before the first subject on their agenda paper was discussed he wished to ask whether the meeting was prepared to listen to a brief statement from him in regard to the question of a Trades Union being formed called "The National Trades Union of Asylum Attendants in Ireland," and to the report that appeared in the daily papers that morning? They could consider it as a matter of urgency.

The CHAIRMAN said they could take the matter up under their first Rule.

Drs. FINEGAN and GARNER agreed as to the importance of discussing this subject together with the training of attendants.

Dr. NORMAN then said they would find in a newspaper called the *Irish Times* of that date a report of the regular meeting of the Board of Governors of the Richmond District Asylum, held yesterday. That newspaper report contained the following sentences:—

"A report was read from a Committee of the whole Board, in relation to the rules of the National Union of Asylum Attendants of Ireland, a copy of which

had been forwarded to the Board. The Committee resolved that the Board of Governors be requested to decline to recognise this society, and to inform their attendants that to become a member of it will be held to disqualify them from employment in the Institution.

"The following resolution was now adopted:—

"That we adopt the report of the Committee, the Medical Superintendent to see the men whose names are attached to the rules of the Society called "Asylum Attendants of Ireland Trades Union," and communicate to them the decision of the Board, and that they are dismissed from service in the asylum unless they at once withdraw from the Society."

Dr. Norman said he thought he was justified in quoting to the Association the published rules of the Society or Trades Union referred to. He quoted from a printed copy such as were on sale. The persons who had framed this curious document seemed to think a combination of attendants had the power of taking from the Governors of Asylums the right of managing the institutions which was committed to them by Act of Parliament. The first of the Union rules runs as follows:—"The Society shall be called the Asylum Attendants of Ireland Trade Union. The object of the Society shall be to improve the condition and protect the interests of its members; to endeavour to obtain and maintain reasonable hours of duty and fair rates of wages; to promote a good understanding between employers and employed, the regulation of their relations, and the settlement of disputes between them by arbitration, or failing arbitration by other legitimate means; to provide temporary assistance to members when out of employment through causes over which they have no control, or in resisting unjust treatment; to provide legal assistance whenever and wherever necessary in matters pertaining to the employment of members, or for securing compensation for members who suffer injury by accidents in their employment occasioned by the negligence of their employer, or for those for whom their employer is liable; also to provide a grant of money in case of members permanently disabled." Continuing, Dr. Norman said these rules which he had laid before them simply expressed a determination to endeavour to specially create, in this particular case of attendants, a Trades Union, the principal end of which, as of all such organisations, was the perfecting of the ordinary Trades Union weapon—the weapon of strike. He did not anticipate any danger so far as his own asylum was concerned. In the Richmond Asylum the decisive and prompt action of the Board had, as they would gather from the newspaper report, put a stop to this business, but it might possibly break out in other asylums, and may under other circumstances, and in the hands of a Board less firm and determined, give a good deal of trouble. It occurred to him that this was a matter which, considering the fact that the attendants of Irish Asylums are virtually civil servants, are persons appointed and dismissed under the regulations of an Act of Parliament, and eligible for pension after service for a comparatively brief time, should be taken into serious consideration by the Executive when it is proposed to make rules and regulations for the various District Asylums in Ireland. He would like to have the feeling of the meeting generally on the subject, and he was anxious, at any rate, to bring it under their notice in view of any possible further development.

Dr. FINEGAN suggested that a resolution should proceed from that meeting asking the Inspectors of Lunatics to take the matter into consideration.

Dr. GARNER dwelt upon the utter incompatibility of the idea of a strike with the discipline of an asylum. He pointed out that attendance on the insane was not a trade, and he said he was confident that if an attempt of this kind was made by the attendants in his asylum he would be able to deal effectively with it. He agreed that the same conditions for meeting this society might not be so favourable elsewhere, but if one of his attendants took any part in it he would forthwith suspend him, and recommend the Board to dismiss him. On the whole he was disposed to think it would not be wise to make too much of the incident before them.

Drs. FINEGAN and O'NEILL favoured the suggestion to invite action on the part of the Inspectors, but at the same time they felt certain of their ability to prevent the Society getting any recognition in their asylums.

The following resolution was proposed by Dr. O'NEILL, seconded by Dr. FINEGAN:—"That the attention of the Inspectors be drawn to the Trades Union Society of Asylum Attendants, as we believe that if it was allowed to increase it would be injurious to the best interests of asylums."

After further remarks from Drs. Woods and NORMAN,

The CHAIRMAN said possibly the discussion that had taken place would have the effect of a resolution. Besides, the subject had come somewhat suddenly on them, and perhaps, under the circumstances, Dr. O'Neill would agree that the object in view would be as well served by withdrawing the resolution.

Dr. O'NEILL said as far as he was concerned he would withdraw the resolution with pleasure.

Dr. Woods said if this Society did not die by the solitary action of the Richmond Asylum Board the subject could be again brought up at the Annual Meeting of the Medico-Psychological Association, and they could then take action. They might be a little too hasty just at present.

After some further discussion the resolution was withdrawn.

#### THE TRAINING OF ASYLUM ATTENDANTS.

Dr. FINEGAN introduced the subject, dealing especially with the way in which papers were examined. He thought that too many of the candidates who presented themselves were allowed to pass. In some of the results announced recently he noticed that all the candidates succeeded. He feared that there was an unwillingness to "stick" candidates. As far as the Mullingar Asylum was concerned, all that went up were able to read and write, and passed (laughter). He suggested that they should consider whether it would not be advisable that an Educational Committee should be appointed who would either mark the papers or select examiners for the purpose.

Dr. Woods said that he had raised this question in London at the Annual Meeting, and he quite agreed with the views of Dr. Finegan in favour of common examiners for all the papers. The duty of examining all the papers should be referred to one person or an Examining Board, and no candidate should be allowed to pass who did not come up to the common standard. Dr. Finegan's statement about all being allowed to pass was hardly borne out by the facts, which showed the proportion of failures to be about 28 per cent., at all events in Cork and Limerick. In some asylums he feared there was a system of cram, and he thought they ought to extend the lectures over a long period. Those who did not intend going for the next examination should be compelled to attend, and promotion should only be given to those who passed the examination.

Dr. O'NEILL mentioned a scheme which he had brought before his Board which would benefit the attendants who received the certificate of the Medico-Psychological Association, and instanced the case of one nurse who had been in his asylum only two years whom he had promoted because she had passed the examination. He thought that nurses should be compelled, or that some pressure should be brought to bear on them to go in for the examination. He agreed with what Dr. Finegan had said about the necessity for greater care in the examinations. It certainly seemed strange to say that out of twenty or twenty-one names in one asylum not one was stopped. Marks ought be given to attendants and nurses for general conduct, condition of their wards, appearance of patients, and general character. Of course if that could not be done some provision should be made to recognise these evidences of care in duty.

Dr. Woods said a resolution was adopted by the Cork Board eighteen months ago to give £2 per annum to each one who obtained the certificate of the Association, and the recent circular showed that the Privy Council were prepared to adopt that proposal. He was not satisfied with that, and he had got the Cork Board to sanction a grant not exceeding £100 per annum which would be divided amongst those attendants who during the year had shown special merit and performed their duties in a perfectly satisfactory manner. Result fees in Irish Asylums would be a valuable incentive to the men doing their duty. Attendants who worked in an exceptional way were entitled to some recognition from the Governors.

DR. NORMAN said he was very much struck by the extreme kindness of heart which Dr. Finegan showed by the manner in which he suggested he could not find it possible to "stick" an attendant. He (Dr. Norman) was glad to say that the general records of examinations in this country hardly bore out this extremely roseate view. At the November examination in the Richmond Asylum, eighteen attendants presented themselves. One retired and four were stopped. In that examination he was associated with Dr. Molony. They got wonderfully few papers incorrectly spelt, and some of them would not suffer in comparison with the papers of the medical students of the Physicians and Surgeons Conjoint Examination. He thought there would be great practical difficulty in carrying out the suggestion to refer all the examination papers to one person. With regard to Dr. O'Neill's suggestion that marks should be given for general conduct that was wholly impossible in connection with this examination. What they should aim at was that every attendant should be compelled to pass the examination. If they did not do so they should not be retained.

THE CHAIRMAN said that of the five attendants in his asylum who went in for the examination all passed, but he regretted that he could not anticipate such good results in future. Naturally the best men would go up for the earlier examinations. Many would drop out before an examination, and it was not surprising that there were so few failures. Lectures and the setting of papers were very valuable aids to attendants and nurses.

DR. NORMAN said his assistants had conducted weekly examinations as well as lectures for the nurses of the Richmond Asylum. He regarded these weekly examinations as of great value.

THE CHAIRMAN said any resolution with regard to having the papers examined by a committee must be brought up at a future meeting, but that if this meeting was of Dr. Finegan's opinion it would be competent for them to send forward a recommendation which could be discussed and dealt with by the Annual Meeting.

After some further discussion it was agreed to send forward a suggestion to the Annual Meeting that in future papers should be marked and signed by a committee.

#### THE ATTENDANTS' HANDBOOK.

DR. NORMAN said that though his name appeared in the book as one of the authors, he should disclaim that credit, as he had very little to do with it. The work was chiefly done by his Scottish and English coadjutors. He would suggest to the meeting that the members of the Irish Division of the Association should lay before him (Dr. Norman) any suggestions they had to make with regard to additions or amendments, and he would forward them to the proper quarter, and he could ensure their careful consideration.

The suggestion was agreed to.

#### NEXT MEETING.

DR. WOODS read a letter from Dr. Hetherington, inviting the Irish Division of the Medico-Psychological Association to hold their next meeting in Londonderry.

It was agreed to accept the invitation, and cordial thanks were expressed for the offer of Dr. Hetherington. The date of the meeting was not fixed, but the general feeling was in favour of the second week in August.

#### A CASE OF CHOKING AND ITS SEQUELÆ.

DR. CONOLLY NORMAN read a paper on "Accidental Choking in Asylum Practice." He described a case of an elderly alcoholic woman, who, when convalescent, choked herself by bolting her food at dinner. The speaker had performed tracheotomy and re-established respiration, but the patient died about an hour later, after exhibiting indications of bulbar mischief. Post-mortem, an extreme condition of atheroma of all the cerebral arteries was found to have existed: two small aneurisms (unruptured) of vessels pertaining to the circle of Willis; numerous miliary aneurisms; a portal haemorrhage and an extensive haemorrhage invading the posterior portion of left internal capsule. The speaker regarded

the pontal haemorrhage as the cause of death, and both the haemorrhages as the result of straining brought about by the choking. He dwelt at some length on the interesting features which the case presented, and the rarity of similar records in literature.

#### PATHOLOGICAL DEMONSTRATIONS.

Dr. DANIEL RAMBAUT, Assistant Medical Officer and Pathologist, Richmond Asylum, Dublin, gave a demonstration of many of the more recent histological methods for cortex cord and medullated nerve fibres. Among them were some excellent examples of Berkley's modification of the Golgi Cajal silver method, as mentioned in *Brain* (winter 1895). In many of the sections there was very little incrustation, and in some the cell showed fine lines running from one pole to the other. Dr. Rambaut also showed some good examples of Cox's method as described in Ramon y Cajal's *Nouvelles Idées*, and also examples of the methods of Weigert-Pal, Lissauer, Wolters, Vassale, Azoulay, Nissl, and many sections showing pathological changes in the cortex made by Bevan Lewis' fresh freezing method.

#### AFTERNOON MEETING.

##### CLINICAL DEMONSTRATION.

The afternoon meeting was held in the wards of the Richmond Asylum. Dr. CONOLLY NORMAN exhibited: (1) An extremely well-marked case of tabetic arthropathy (Charcot's disease) affecting both knee joints in a female general paralytic. (2) A destructive affection of one knee joint, resembling Charcot's disease, occurring in a male general paralytic of the spastic type. Dr. Norman said that he had recently seen several cases of Charcot's disease in general paralytics; one, affecting both knees, in a woman who died some months ago; another, affecting both knees, in a man whose mental trouble had been preceded by ataxy, of which the first overt symptoms had been bladder crises. The latter case he had intended to exhibit at this meeting, but the patient died a few days ago. (3) Two cases, a male and a female, of contracture with deformity of the legs resulting from béri-béri, from which affection these patients had suffered when it visited the Richmond Asylum in the autumn of 1894. (4) A case of alcoholic peripheral neuritis, in which the characteristic amnesia, at first well marked, was passing off, and the patient had developed delusions of persecution (poisoning) as a means of accounting to herself for her loss of memory. (5) Several cases of alcoholic amnesia without neuritic. (6) Two cases of bulbar paralysis with insanity. (7) Eight cases of general paralysis in women to illustrate the hypochondriac types of the disease. (8) Cases of general paralysis in men to illustrate the paranoiac (persecutory) types of the affection. Two of these men had attempted suicide.

#### SPRING MEETING OF THE SOUTH WESTERN DIVISION.

The Spring Meeting of the South Western Division of the Medico-Psychological Association was held by kind permission of Dr. Lionel Weatherly at Bailbrook House on Tuesday afternoon, April 14th. Dr. Nicolson presided over a numerous attendance, among those present being Drs. Benham, Aveline, Eager, McBryan, Wade, Jas. Stewart (Clifton), R. S. Stewart (Bridgend), Bower, McWilliam, Weatherly, Cobbold, Macdonald (Hon. Secretary), Hanbury, Deas, Fox, Mercier, Aldridge, and Iles.

##### RESOLUTION OF CONGRATULATION.

The minutes of the Exeter meeting having been read and signed by the Chairman, Dr. WEATHERLY moved a vote of congratulation to the Chairman on his appointment as Lord Chancellor's Visitor. This having been voted by acclamation, the CHAIRMAN expressed in very warm terms his appreciation of the expression of the feeling of the section.

## ELECTION OF NEW MEMBERS.

The CHAIRMAN read the name and proposers of the following candidate for election:—WILLIAM READER HANBURY, Assistant Medical Officer, County Asylum, Dorchester. Proposers: Dr. P. W. Macdonald, Dr. Ewan, Dr. Weatherly.

The CHAIRMAN remarked that unless there was any appearance of negation the gentlemen named would be declared elected.

DR. MERCIER said without in any way wishing to wrangle over the course pursued he should like to hear from the Chairman whether candidates could be elected at a divisional meeting which every member had a right to attend, the agenda paper of which had not been circulated generally to members of the Association.

After considerable discussion, in which Drs. Macdonald, Weatherly, and Stewart took part,

The CHAIRMAN—I rule we are in order in electing these two members to-day. The question is one that may be brought before the Council or general meeting of the Association.

## ELECTION OF HONORARY SECRETARY.

The CHAIRMAN said although he had had no advice on the matter he did not think they need go far to seek an honorary secretary for that division (hear, hear). They could not do better than ask Dr. Macdonald to continue in the position.

DR. DEAS seconded the proposition to submit Dr. Macdonald's name to the Council, and it was carried with acclamation.

## RECOMMENDATION TO THE COUNCIL.

The meeting then proceeded to select names to be submitted for the consideration of the Council when making nominations to fill vacancies at the next Annual Meeting.

After discussion, a resolution to submit the names of Dr. Benham and Dr. Stewart (of Glamorgan) was carried *nem. con.*

DRS. BENHAM and STEWART briefly acknowledged the compliment, assuring the meeting that if their services were called upon they would strive to carry out the duties to the best of their ability.

## THE NEXT MEETING.

DR. MACDONALD announced that an invitation had been received from Dr. Soutar, of Barnwood House, for the Division to hold their next meeting at Gloucester. The meeting that day was to have been held there.

DR. DEAS asked if this would be long enough for Gloucester to rid itself of the small-pox.

The CHAIRMAN—They give it two years. Perhaps, however, it will be an encouragement to the Gloucester people to hope.

The meeting was fixed for Tuesday, 20th October, at Gloucester conditionally

## NON-SPECIALIST APPOINTMENTS TO ASYLUMS.

DR. MACDONALD said under the head of general business he wished to say one or two words respecting an editorial that had appeared in the *Journal of Mental Science* under the heading of "Non-specialist Appointments to Asylums." He felt very strongly that if the Assistant Medical Officers of this country were passed over in the manner they had lately been, and according to rumour were likely to be again, he thought they as an Association should do something to raise their voice against what could only be considered unjust and unfair to a large body of able men (hear, hear). It came to this, that if when Assistant Medical Officers spent so many years of their lives in trying to fit themselves for the senior posts, and when vacancies arose they should be given away to those who had never spent an hour as an officer within an asylum, he did not think they as Asylum Medical Officers could consider it right or proper.

DR. STEWART (Clifton) said he should be pleased to second the proposition, as one who was formerly an Assistant Medical Officer. He thought they, as an Association, should approach the matter on two grounds, not only that they considered from their knowledge of those who had been working in this specialty that they would be the most fit and proper men, but on another and more important ground, viz., that it was for the benefit of the public that the best possible skill should be taken advantage of. He considered that any man whose

duty it was to take charge of a large number of the insane and carry on the important work which it fell to the lot of a Medical Superintendent to engage in, should be one who had had special experience. He regarded it as the duty of the Association to educate the public on the matter, and to lay the case clearly before them. He was inclined to propose as an appendix that it should be sent to the Chairman of every County Council in England. He thought they would be doing in this matter what would be to the advantage of the country at large as well as for the promotion of the good of their own specialty.

Dr. BENHAM thought they might go a step further. Probably they had noticed that in respect to some of the recent appointments of Medical Superintendents for asylums there had been a statement that no pension would be given. It might happen that a man who had served a considerable time in an asylum might like to retire, and his retirement might even be in the interests of the institution of which he was at the head, but under the system of there being no pension he might possibly be prevented because he had been unable to make provision for old age. It might happen that committees who would be glad at a certain period of advanced age to get rid of officers would feel themselves debarred from doing so under the arrangement to which he was referring, because they would be practically turning an old servant out on the world. He thought a clause should be inserted in the resolution to the effect that that branch of the Association viewed with regret that in connection with recent appointments to the Medical Superintendencies of asylums no regard had been paid to the necessary provision for old age.

The CHAIRMAN thought it would be a pity to overload the one idea. The pension question might form the subject of a separate representation, but he did not think it would be well to put it in as a clause of the resolution. With regard to the resolution itself, he thought it scarcely did the extent of the injustice justice by referring merely to the unfairness to Assistant Medical Officers. He thought they would make their case very much stronger by pointing out that the appointment of inexperienced individuals to the posts of Medical Superintendent was a distinct disadvantage to the well-being of the patients. That opened up a much bigger public question than that having reference simply to the injustice to Assistant Medical Officers, the words of the resolution in respect to which they all appreciated most thoroughly. Neither ought they to ignore the fact that it would after a time be impossible to find medical men applying for the junior billet if there were no likelihood of their having a reasonable chance of promotion to the senior office. The question was one of the utmost importance in regard to the proper treatment of patients and the proper administration of the asylums themselves, and no one knowing the circumstances could cavil at a resolution of this sort going forward.

Dr. BOWER thought the side of the question opened up by the Chairman of the greatest importance. He was strongly in favour of an addition being made to the resolution representing the loss which would ensue to the patients and the general management of asylums by the appointment of persons unacquainted with the treatment of mental disease and with asylum management. He thought the question would appeal to all committees of asylums, and suggested that a copy of the resolution be sent to all the Managing Committees. It might then have some effect, but for his own part he thought it would be utterly useless to send it to the Chairmen of County Councils.

Dr. STEWART concurred with Dr. Bower's suggestion, and thought that it would be advisable for the Secretary in forwarding the resolution to express the hope that it would be laid before each Committee at their next meeting.

Dr. ALDRIDGE thought it might be useful to review the arguments used in justification of the last appointment. It was argued that a Medical Superintendent of an asylum did not have much to do with the treatment of the patients, leaving that to the Assistant Medical Officers, but busied himself more with the administration. Further, that a gentleman who had had to take care of the health of a town had learnt something in administration, and had also got what was considered to be a first rate requisite for the Superintendency of an asylum

—a good nose for smell. (Laughter.) This contention, however, rather refuted the theory that Assistant Medical Officers should not be appointed, because if he had had the treatment of patients left to him surely he was better qualified to treat them when he became the Superintendent than a man who had probably never seen half-a-dozen lunatics in his life. (Hear, hear.) There was a letter only the other day in the *British Medical Journal* from a late Assistant Medical Officer on this very point, which supported the contention. It was from an Assistant Medical Officer who had served two or three years, and had then gone out of the specialty. He thought the argument a very forcible one, and it would be well to lay the fact clearly before all Asylum Committees that to appoint at the head of asylums men who were altogether inexperienced in that branch of the medical science might possibly mean a very serious thing to the ratepayers, and probably lead to some very expensive mistakes. (Hear, hear.)

Dr. MACDONALD suggested that the resolutions should be left to the Chairman and himself to frame. He thought they had fairly gathered what were the views and wishes of the meeting.

Dr. Fox said he was inclined to go further than Dr. Benham, and say that if it was improper that inexperienced men should be appointed as heads of asylums, surely it was much more improper that inexperienced medical men should be appointed to the regulation of all the asylums and of all the Superintendents. He should like to suggest that as a logical outcome of the former resolution, seeing that they were now engaged in the occupation of educating the public, it should be submitted to the discretion of the President whether or not it would be desirable to forward to the Lord Chancellor a petition from that Division to the effect that in future all appointments of Medical Commissioners might be made exclusively from gentlemen who had had previous experience in the management of asylums. (Laughter.)

Dr. BOWER—And Deputy Commissioners. (Renewed laughter.)

Dr. FOX—Yes, as far as I am concerned.

The PRESIDENT—It opens up a very large field. (Laughter.)

The following are the resolutions as ultimately framed:—

“That in all appointments to the office of Medical Superintendent of an Asylum for the Insane, previous experience as an Asylum Medical Officer should be required.”

“That the appointment of candidates who have had no previous experience in the treatment of the insane is detrimental to the best interests of the patients and unjust to the large body of Assistant Medical Officers.”

“That the Association be asked to take such steps as it may deem advisable with the view of making representations on the subject to all interested authorities.”

“That owing to the anxious and trying, not to say dangerous nature of the duties, and the great necessity of securing the best candidates, the office of Medical Superintendent to an Asylum for the Insane should in every case carry with it a retiring allowance.”

“That this meeting views with regret the fact that in some recent appointments to the post of Medical Superintendent in this country it has been announced that no pension will be granted.”

#### THE REPORT ON CRIMINAL RESPONSIBILITY.

In accordance with a resolution passed at the last meeting of the Division, the meeting proceeded to consider the report of the Committee on Criminal Responsibility.

Dr. WEATHERLY in opening the discussion expressed the opinion that it would not do for them as an Association to accept the report, for the simple reason that they had made in the past very definite attempts to get the law altered and they were still having before them constantly reasons why the law should be altered. They had had since their last Annual Meeting a large sectional meeting of the Psychological Section of the British Medical Association, and here the consensus of opinion was that the law was wrong, and required amendment. They also found the editor of the *Times* recently allowing a leading article to appear in that

journal condemning the law, pointing out the need there existed for a change and the advisability of the lawyers meeting and taking some action in the matter. If they accepted the report it would appear that they were contented and that everything was as it should be. The arguments which he adduced before the sectional meeting of the British Medical Association had by cases since been strongly exemplified. He said then, and still strongly maintained, that the fact of so many people being reprieved after sentence of death proved all the more that the law must be wrong, for while a man was sentenced to death under it in a court of justice, it very frequently reprieved him in the criminal cell. Although they admitted that things were improving very much, and realised that the judges were very much more inclined to allow that latitude which ought to be allowed medical witnesses in the witness-box, and although they were satisfied that much greater justice was done to the criminal lunatic in the present than in the past, still he thought it would be more advisable to allow the report to lie on the table than to actually accept it, and for the sub-committee to remain as a standing committee to watch the question on behalf of the Medico-Psychological Association. It seemed to him that there was a great deal of watching required, and though he understood that Dr. Mercier had undertaken to watch these cases, it appeared to him that it would be better for the sub-committee to act instead of any member individually. He suggested that a resolution should be moved to this effect.

Dr. MERCIER remarked that a notice was put in the Journal requesting every member of the Association to be good enough to send reports of cases occurring in their neighbourhood for publication in the Journal. That notice, however, had not once been responded to. (Laughter.) He had had to collect the cases himself by sending to the proprietors of the local journals, and from the reports of the ordinary daily papers. Dr. Weatherly had evidently become aware of several cases which he had not reported and which ought to have been reported in the Journal. As he had stated that they showed his own view of the matter, Dr. Weatherly had himself to blame that these cases had been omitted. As to the subject generally, he did not wish to enter largely upon it, because it would come up again at the Annual Meeting. But with regard to one case referred to by Dr. Weatherly of a man being subsequently reprieved on the ground of insanity although found guilty in court, it was a fact which he omitted to mention that other circumstances were discovered after sentence which showed the man's insanity.

Dr. WEATHERLY said he quite agreed with Dr. Mercier on that point. It was shown that the man was suffering from inflammation of the base of the skull.

Dr. FOX said he had not read the report of the committee very recently, but it had appeared to him that it did not sufficiently condemn that silly old formula of the knowledge of right from wrong as being the test of judicial responsibility. He was bound to say that as a scientific society, as a society of physicians conversant with the mental powers of the huge majority of their patients, they should be extremely reluctant in accepting any report which had even the slightest tendency to favour a formula that was liable to work the greatest possible mischief and injustice in the determination of criminal responsibility. They found that all the arguments raised were founded on capital cases, but there was a very considerable number of cases in which the plea of insanity was raised that were not capital cases. In these cases as in others the injustice and the scientific wrong were equal with what they were in capital cases, only supposing it was raised, and unsuccessfully raised, it was much less likely to be put right than when grave consequences followed. As a private member of that Association he should strongly vote for further time before the report was accepted in its entirety. (Hear, hear.)

Dr. STEWART (Clifton) described a legal case in which he had been concerned in illustration of what Dr. Fox had stated. As to the matter before them, he thought that Dr. Weatherly had made out a very good case for their exercising a great deal of care before committing themselves to any report which would make permanent an opinion which he doubted very much whether the whole Associa-

tion or the greater part of it would be prepared to abide by, if placed in the witness box.

Dr. WADE proposed a resolution in accordance with Dr. Weatherly's suggestion, that the report be allowed to lie on the table and that the sub-committee be the standing committee to further watch the question. (Hear, hear.)

Dr. ALDRIDGE seconded.

Dr. MERCIER said he should like to explain a point in regard to which there appeared to exist a good deal of misapprehension. It was stated again and again that the report thoroughly and entirely approved of the state of affairs and laws at present existing. The report did nothing of the kind. All that the report did was summed up in the closing paragraph. In this it was stated that the committee did not at present see their way to make any recommendation for alteration in the law. This was a very different thing to expressing complete and entire approval with the law as it stood.

The CHAIRMAN said that there was always the great risk of wandering away from the point at issue on a question that touched them all so much personally. As had already been explained the report of the committee arose out of a special group of circumstances and had relation merely to the opinion formed by that committee on the working of the law in recent years, in view of the extended knowledge that medical men possessed, and the extended confidence which the judges were showing medical men who gave evidence before them. It was suggested at the meeting at Bristol when the original committee was formed that they should approach the Lord Chancellor directly in the matter, but personally he was very strongly opposed to that because he thought it would be unseemly for them to go with an insufficient case to him, before the matter had been considered by the Association. He did not agree with Dr. Fox that they should drag minor cases into the discussion. It was a very good and proper question on its own basis, but they were dealing with the question of hanging individuals where they went beyond recall. His own experience from the great number of cases he had gone to see was that it was most important and vital that the question should sometimes be reconsidered after trial. He felt that before trial, at the trial, and after trial, insane people who did criminal acts were thoroughly and properly considered in all their relationships, and it was quite possible that they might do more harm than good by being hysterical over a question of such grave import. He spoke strongly from his own experience in advising that no active steps should be taken that would bring the Association into a false position with the judicial authorities of the country, and with the members of the community. There might be injustice done, but he thought it had been reduced to a very minimum—within human range, none he would say wilfully or intentionally, either by the judges or by the medical men. It was hardly fair, or advisable he thought, that they should be prominent in their outcry when they were, as yet, unable to supply advice in the nature of a remedy for the existing state of things. Referring to the resolution before the meeting, he thought it would be a mistake that the sub-committee should stand as a permanent committee. The Home Office was pleased at all times to get from any member of the community evidence that any particular case required, and to review it. The matter was one that rested as much with members of the Association individually as with a committee.

Dr. WEATHERLY said he was not at all desirous of any active steps being taken. He merely went so far as to say that he did not think the Association should commit itself to the report.

Dr. WADE—I am quite prepared to withdraw that clause of the resolution referring to the standing committee.

The CHAIRMAN—I don't think, then, if the report is merely allowed to lie on the table, it will do any harm to the country. (Laughter.)

Dr. STEWART—It has at least brought many interesting facts before us and I think we are greatly indebted to the committee for their work. (Hear, hear.)

#### THE NURSING STAFF IN ASYLUMS.

Dr. MACDONALD, after various postponements, extending over a period of some

18 months, then read his paper on "The Nursing Staff in Asylums." (See Original Articles.)

THE LUNACY ACT.

Dr. R. S. STEWART then read notes on "The Special Reports and Certificates required by Sec. 38 of the Lunacy Act, 1890, and Sec. 7 of the Act, 1891." (See Original Articles.)

The CHAIRMAN at the conclusion of the paper thanked Dr. Stewart, on behalf of the meeting, for his contribution, and though it was not exactly one to give rise to any great discussion, it would be open for inspection in the pages of the Journal, for he was sure that any method that could be introduced to simplify and keep straight the cumbersome working of the Act in this relation was to be welcomed. (Hear, hear.)

Before parting he thought they would like him to ask Dr. Weatherly and Dr. Cobbold to accept their sincere thanks for their great kindness in not only being always so ready to provide them shelter, but for entertaining them so freely, generously, and handsomely. (Applause). He also congratulated the members of the Division on attending in such large numbers.

The members and several visitors afterwards dined together at the Grand Pump Room Hotel.

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REPORT OF THE DEPARTMENTAL COMMITTEE ON PRISONS ,  
1895.

In June, 1894, a Committee was appointed by the Home Secretary (Mr. Asquith) to inquire into certain questions bearing upon the administration of prisons, and the classification and treatment of prisoners. The Report of the Committee is dated April, 1895. We here abstract from the summary of principal recommendations of this Report certain which have special interest for alienists.

(i.) That candidates for medical appointments in prisons should be required to show that they have given special attention to lunacy, and that the medical staff in Holloway and other prisons similarly circumstanced be strengthened.

(ii.) That weak-minded prisoners should be concentrated so far as is possible in special prisons, and should be under special medical supervision; and that it should be considered whether it is right to treat such persons as ordinary criminals.

(iii.) That two or more prisons should be selected as training schools for all ranks of the prison staff, and be placed under the charge of the most experienced officers in the service.

(iv.) Habitual criminals to be kept as a class apart from the other prisoners. It should be considered whether a new form of sentence might not with advantage be placed at the disposal of the judges by which these prisoners could be segregated under special conditions for long periods of detention.

(v.) Prisoners sentenced primarily for drunkenness should be specially treated in prisons or parts of prisons set apart for them.

(vi.) That an additional member of the Prisons Board should be appointed, who should be a medical man.

The above is a summary of the recommendations. We may note more fully certain of the suggestions as contained in the body of the Report.

In reference to (i.), the Belgian system of medical inspection of convicts is favourably noted. In Belgium three special medical officers, alienists by training, have each the care of a certain number of prisons, the total number of which is for this purpose divided into three divisions. Appendix (i.) of the Minutes of Evidence furnishes, in answer to the question "Is any special arrangement made for the study of insanity in prisons?" the methods employed in the principal States of Europe and in America. With the exception of France, Germany (Prussia), and Austria—and even in these the arrangements cannot be described as satisfactory—in no country is the study of insanity in prisons

specially provided for. (ii.) Weak-minded prisoners are said to supply about 2 per cent. of the prison population. The treatment of these has always been found to present peculiar difficulties. The short terms of imprisonment to which they, for the most part, are sentenced, would seem to be of but little avail, since they return frequently a few days after discharge. In other cases they spend their lives in circulating between prison, asylum, and workhouse. The Committee agrees with the various witnesses as to the desirability of establishing a special institution for this class. It considers that "it is indeed a question whether the epileptic and obviously weak-minded class should be sent to prison at all." (iii.) Those in the "training schools" referred to should, it is recommended, "go through a course of systematic and scientific instruction. Lectures should be given by experts in criminal anthropology, and every man who enters the service should have a clear knowledge of what can and ought to be done in his personal dealings with prisoners, over and above the formal discharge of his routine duties." The immediate organisation of these establishments is recommended. It is pointed out that under such a system (the application of which is still further elaborated in the Report) a higher class of prison warders would be produced. (iv.) It is recognised that habitual criminals are a most undesirable element in a mixed prison population, and that they require special treatment. A considerable section of them regard short sentences with "comparative indifference." Serving their time quietly they all along have the full determination to revert to crime on discharge. It is pointed out that, as loss of liberty would eventually, to such persons, prove the chief deterrent, long periods of detention during which they would be forced to work, though under less onerous conditions than those of hard labour, are very desirable in their case. (v.) The Committee's inquiries confirm the recommendation of the Departmental Committee on Inebriates, that magistrates should have power to commit for lengthened periods habitual drunkards. "The physical craving for drink is a disease which requires medical treatment. . . . Special medical treatment should be applied to them (habitual drunkards), and they should be dealt with as patients rather than criminals."

The Report closes with a memorandum on "Insanity in Prisons," by Dr. J. H. Bridges. He shows that the strong statements to the effect that the existing prison system promotes insanity, and that the number of cases of insanity occurring among prisoners is greater than it was 20 years ago, "when prison administration was less centralised," are unfounded. It has been pointed out by the Medical Inspector of the Prisons Board that the practice of sending insane persons to prison has largely increased of recent years. The remarks of the Lunacy Commissioners in the 43rd Report are quoted, to the effect that during a period of a few years prior to that Report, many medical men refused to certify insane persons, owing to fear of litigation, and thus many insane persons have not been legally dealt with. It is probable that many of these have been first dealt with as lunatics after they have committed some offence, and found their way to prison. And this brings us back to the question of the manufacture of insanity in prisons. It is clear, on inquiry, that most of the cases of insanity recorded in gaols were already insane on admission. Out of 354 cases recorded in local prisons in a given year there appeared to be only 60 in which insanity was for the first time apparent a month or more than a month after admission. The memorandum observes that "on examination at least 18 must be deducted from this number, as being judged to be insane on their trial, or as presenting obvious signs of mental unsoundness at the time when their imprisonment began." After examining the special Reports obtained by the Committee in these 60 cases, abstracts of which are given in Appendix (vii.) we have come to the conclusion that 18 falls far short of the proper number to be deducted, which reaches 48 at least; leaving at most 12 cases, who, being sane on admission, became insane more than a month afterwards. In conclusion then, with the exception of something like a dozen cases, evidence of insanity on admission was obtainable in all the cases of insanity recorded in local prisons for the year in question.

## MEMORANDUM ON CRIMINAL RESPONSIBILITY.\*

By W. ORANGE, C.B., M.D., F.R.C.P.

In the case of a person who is charged with an indictable offence, and who is alleged to be insane, the first question that presents itself for consideration is whether such accused person is, or is not, in a fit mental condition to be called upon to plead to the indictment, and to take his trial; for, according to the common law of England, as stated by Blackstone, in his *Commentaries* (Book 4, Chap. II): "If a man in his sound memory commits a capital offence, and before arraignment for it, he becomes mad, he ought not to be arraigned for it; because he is not able to plead to it with that advice and caution that he ought." And this general principle of the common law was set out more fully in a statute passed in the year 1800 (39 and 40 Geo. III., cap. 94), by which it was enacted that "If any person indicted for any offence shall be insane, and shall, upon arraignment, be found so to be by a jury lawfully impanelled for that purpose, so that such person cannot be tried upon such indictment," . . . "it shall be lawful for the Court before whom any such person shall be brought to be arraigned, or tried as aforesaid, to direct such finding to be recorded, and thereupon to order such person to be kept in strict custody until His Majesty's pleasure shall be known."

In deciding this point, whether the accused is mentally fit to be called upon to plead and to take his trial, the Courts do not appear to be in any way fettered or hampered by any rigid rule.

In Russell, *On Crimes* (Vol. i., p. 114), the test of capacity to plead to an indictment is stated in these terms:—"Whether he (the accused) is of sufficient intellect to comprehend the course of the proceedings on the trial, so as to be able to make a proper defence." If he is not mentally fit to make a proper defence, the trial does not proceed, but the accused is detained, in conformity with the statutory provisions.†

In those cases, however, where the question referred to in the preceding paragraph has been decided in the affirmative, and where it is considered that the accused is, to use the words of Russell, "of sufficient intellect to comprehend the course of the proceedings on the trial, so as to be able to make a proper defence," the accused is then called upon to plead. The trial then proceeds, and the jury are required to find, firstly, whether the accused did or did not commit the offence charged against him; and, if this question is answered in the affirmative, then to say, further, whether, at the very time of committing the offence the accused was, or was not, "insane, so as not to be responsible according to law."

The special statute relating to this matter, at present in force, was passed in the year 1883, and is entitled the "Trial of Lunatics Act" (46 and 47 Vict., c. 38). It extends to Ireland, but not to Scotland; and it will be observed that its provisions have reference only to those cases in which the accused is considered to be of sufficient mental capacity and of sufficiently sound mind to be put upon his trial.

By this statute it is enacted that "where in any indictment, or information, any act, or omission, is charged against any person as an offence, and it is given in evidence on the trial of such person for that offence that he was insane, so as not to be responsible, according to law, for his actions at the time when the act was done, or the omission made, then, if it appears to the jury, before whom such person is tried, that he did the act, or made the omission charged, but was insane, as aforesaid, at the time when he did or made the same, the jury shall return a special verdict to the effect that the accused was guilty of the act or omission charged against him, but was 'insane, as aforesaid, when he did the act or made the omission.'"

The statute then goes on to direct that "where such special verdict is found,

\* Prepared for the Committee of the Medico-Psychological Association, appointed at the Bristol Meeting, July, 1894.

† See also Tuke's *Dictionary of Psychological Medicine*, p. 591, Art. "Plead."

the Court shall order the accused to be kept in custody as a *criminal lunatic*, in such place and in such manner as the Court shall direct, till Her Majesty's pleasure shall be known."

It will be observed that, whereas by former statutes a person was said to be "*acquitted* on the ground of insanity," the term "*acquitted*" is now no longer used; but by the statute of 1883, the jury are required to say, firstly, whether the accused is or is not guilty of the offence charged against him; and then, if they say he is guilty, they are further required to say whether he was sane or insane at the time of its commission.

It will, further, be observed that in those cases where a person is declared by the jury to have been guilty of the offence charged against him, but to have been insane at the time of its commission, the Court is specially required to order such person to be kept in custody as a *criminal lunatic*; and he is thus brought under the operation of special statutes, which have been framed with the double object of providing for the due care and treatment of the individual, and also of affording to the public the protection, which they have the right to require, against the possible commission of hurtful acts by the same individual, in the future.

And now we come to the main question, namely, the precise interpretation that is to be placed upon the words of the statute, "insane, so as not to be responsible, according to the law, for his actions, at the time when the act was done, or the omission made."

Lord Denman, in the course of his charge to the jury, in Oxford's case, laid down the broad, general principle that "Every sort of insanity and every mode of proving it must have reference to the particular object with which it is laid before the Court."

And in the case now under consideration the particular object is to determine whether the insanity is of such kind and of such degree as to render the accused person who is the subject of it "not responsible, according to the law, for his actions."

It is with reference to the determination of this particular point that it becomes necessary to consider the answers that were returned by the bench of judges, in the year 1843, to certain questions put to them by the House of Lords; inasmuch as it is generally held that those answers constitute the leading authority by which the Courts are guided in directing juries in cases of this description.

The resolution, which the Committee was appointed to consider, would appear to indicate, indeed, that the terms of those answers were regarded as being the matter to which the attention of the Committee would be chiefly directed, although the words "to investigate the whole subject" would show that its attention was not to be entirely confined to that one point.

The circumstances under which the questions were put to the House of Lords are so well known as to require only the very briefest recapitulation.

An insane man, named Daniel McNaughten, who laboured under insane delusions of the kind commonly known as delusions of persecution, and who insanely imagined that his supposed enemies were gradually killing him by their persecutions, conceived, at last, the insane idea that the Prime Minister was responsible for the continuance of these supposed persecutions, and that the only way in which he could put a stop to them would be by taking his life. Actuated by these monstrous delusions, he, in the end, fired at, and killed the Prime Minister's Private Secretary, whom he mistook for the Prime Minister himself.

In due course he was tried, with the result that the jury found, as their verdict, that he was insane at the time of committing his offence.

So tragic an event produced, naturally enough, a profound sensation, and it is scarcely to be wondered at that some difference of opinion was expressed with respect to the verdict.

In the discussions which ensued in the House of Lords\*, it would appear that three of the Law Lords, viz. Lord Lyndhurst, Lord Cottenham, and Lord Campbell, were of opinion that the verdict was a right one; whilst Lord Brougham

\* *Hansard*, 3rd series, vol. lxvii., pp. 714-741.

stoutly maintained the contrary, and said: "If the perpetrator knew what he was doing, if he had taken his precautions to accomplish his purpose, if he knew at the time of doing the desperate act that it was forbidden by the law, that was his test of sanity;" and then his Lordship went on to add that "he cared not what judge gave another test, he should go to his grave in the belief that it was the real, sound, and consistent test."

Notwithstanding, however, that Lord Brougham thus forcibly expressed his disregard for the opinions of other judges, he yet urged, and urged so strongly as to overcome the wiser counsels of Lord Lyndhurst, that certain questions should be put by the House of Lords to the whole bench of judges, in order that they, in their answers, might formulate the criteria of criminal responsibility, in cases of alleged unsoundness of mind.

As a result of the discussion which took place in the House of Lords, on March 6th and 13th, 1843, five questions were put to the judges, by whom, after taking ample time for deliberation, answers were returned on June 19th of that year.

The terms of those questions, and of the answers thereto, will be found in the pages of *Clark and Finnelly's Reports*, Vol. x., p. 200; or at page 201 of *The Insane and the Law*, by Pitt-Lewis, Percy Smith, and Hawke; or at page 310 of Hack Tuke's *Dictionary of Psychological Medicine*.

It will be observed that the judges themselves had no desire whatever that such questions should be put to them. They did not, of their own accord, go out of their way to make rules. Much against their inclination, they did their best to answer abstract questions which, probably, ought never to have been put to them.

The terms of these answers have, indeed, been subjected to much criticism from various quarters.

The late Sir James Fitzjames Stephen, in his *History of the Criminal Law of England*, observes (Vol. ii., p. 154): "I cannot help feeling, however, and I know that some of the most distinguished judges on the bench have been of the same opinion, that the authority of the answers is questionable, and it appears to me that when carefully considered they leave untouched the most difficult question connected with the subject, and lay down propositions liable to be misunderstood, *though they might*, and *I think ought*, to be construed in a way which would dispose satisfactorily of all cases whatever."

And in another passage the same writer refers to them as "mere answers to questions which the judges were probably under no obligation to answer, and to which the House of Lords had probably no right to require an answer, as they did not arise out of any matter judicially before the House."

It will be remembered also that Mr. Justice Maule declined to concur in the answers given by the other judges, and said that he would have been glad if his brethren had joined him in praying to be excused from answering these questions, as he feared that the answers "might embarrass the administration of justice when they were cited in criminal trials."

And, if we descend from the bench to the bar, we find the late Mr. Serjeant Ballantyne writing as follows in the volumes of recollections published by him in 1882.\* "The judges were summoned by their lordships to express their opinion upon the law applicable to insanity in criminal cases. It seems to me surprising that they did not point out that such a proceeding was extra-judicial, and that their opinions could only properly be given upon certain facts arising before them in their judicial capacity, and that what was asked of them was to make a law in anticipation of facts that might hereafter arise. . . . As might be expected, being called upon to found abstract opinions, with no facts to go upon, they have not greatly assisted the administration of justice."

If we turn now from the question of the authority of the answers to the question of their scope, we shall find that great legal authorities are not all of one mind either upon this subject. And, thus, whilst the late Lord Chief Justice Cockburn (in a letter on the Criminal Code Bill, ordered by the House of Commons to be printed on the 6th of June, 1879) refers to the answers as if they contained only so much

\* *Some Experiences of a Barrister's Life*, by Mr. Serjeant Ballantyne. 1882; Bentley, Vol. I., p. 246.

of the law as was necessary to answer the questions that had been submitted to the judges, on the other hand Lord Wensleydale, who, as Mr. Baron Parke, had taken part in the preparation of the answers, spoke of them, in the evidence given by him before the Capital Punishment Commission of 1865 (Question 362), as if he regarded them as embodying the whole of the law on the subject.

If it were thought that any further justification were needed by the Medico-Psychological Association for raising the question now under consideration, such justification would be found in the recent utterances of two judges so eminent as Mr. Justice Hawkins and the late Lord Chief Justice Coleridge. In the course of the trial, for murder, of a man named George Pearsall, reported in the *Worcester Journal* for Saturday, February 18th, 1888, Lord Coleridge is reported to have said that "he considered that judicial decisions on questions of insanity were bound by an old authority which, by the light of modern science, was altogether unsound and wrong." And, further on, that "there was no more painful part of the duty of those who had to administer the law than the matter of insanity. The law which existed upon the subject, and which he was going to lay down to them as law, was not incapable of being so interpreted as to do terrible injustice." And then, further on, Lord Coleridge said "that the law was administered now, he was most thankful to acknowledge, in a different spirit."

The result of the trial in this case was that the jury found, as their verdict, that the accused "was guilty of the act, but that he was insane at the time he did it."

In the case of Anthony Ware, reported in the *Shrewsbury Herald* for January, 24th, 1885, Mr. Justice Hawkins, in his charge to the Grand Jury, called attention to the case of this man, charged with murder at Bicton Asylum, and said "there had been a great deal of discussion as to how far Ware was responsible for his actions, being a confirmed lunatic." And, further on, that "it would, of course, be absurd to suppose that in this matter Ware was himself responsible for his actions, yet the law with respect to the responsibility of criminal lunatics seemed to him to be in a very unsatisfactory state;" and, further on, that "more than one of the judges had expressed a desire that the law on the subject should be reviewed, and a little more definite understanding arrived at."

His Lordship, however, at the conclusion of his remarks, added that "the Clerk of Arraigns had just handed him a letter from the Public Prosecutor, in which it was stated that no indictment would be preferred against him (Ware), as he had already been removed to Broadmoor Lunatic Asylum."

In looking through the records of the various discussions and criticisms to which the terms of the judges' answers have, at different times, been submitted, the attention is especially arrested by the discussion which took place in the year 1874, when a proposal was made to codify the law of homicide generally, and when, therefore, the codification of the law as to the effect of madness, in cases of homicide, was proposed, as a part of the general scheme.

A Bill, "to consolidate and amend the law relating to Homicide," was prepared, and brought into the House of Commons by Mr. Russell Gurney\* and Mr. Lopes,† and was ordered to be printed on March 24th, 1874. The drafting of the Bill had been entrusted to Mr. Fitzjames Stephen.‡

The 24th section of this Bill, as brought into the House of Commons, was in the following terms:—

"Homicide is not criminal if the person by whom it is committed is, at the time when he commits it, prevented by any disease affecting his mind—

"a. From knowing the nature of the act done by him;

"b. From knowing that it is forbidden by law;

"c. From knowing that it is morally wrong; or,

"d. From controlling his own conduct.

"But homicide is criminal, although the mind of the person committing it is affected by disease, if such disease does not, in fact, produce some one of the effects aforesaid in reference to the act by which death is caused, or if the inability to control his conduct is not produced exclusively by such disease.

\* At that time Recorder of London.

† Now Lord Justice Lopes.

‡ Afterwards Sir James Fitzjames Stephen.

"If a person is proved to have been labouring under any insane delusion at the time when he committed homicide, it shall be presumed, unless the contrary appears or is proved, that he did not possess the degree of knowledge or self-control hereinbefore specified."

This Bill, it will be remembered, was a Bill to define, consolidate, and amend the law relating to homicide generally. It consisted of 44 clauses, and the only clause touching upon the effect of madness was the 24th, which has been set out above.

The Bill was read a second time in the House of Commons on the 14th of May, and was then referred to a Select Committee, and the Report made by that Committee was ordered by the House of Commons to be printed on the 21st of July, 1874. In their Report the Committee observe that the responsibility of declaring the terms on which *it shall be lawful to take the life of a fellow creature* is the most awful that can be undertaken; and that it should not be adventured on as a test or experiment, but should be reserved until the method of codification has been perfected by numerous trials on less momentous subjects. They go on to say that "in the case of homicide we have to deal, not with technical terms, but with ordinary language, which is quite intelligible when used by a judge in directing a jury on a state of facts proved before them, but which, when reduced to abstract propositions, becomes obscure and ambiguous from the want of particulars to which the proposition applies, and from the want of a clear definition of the terms used."

After adducing other weighty reasons "against commencing to codify with the law of homicide, and above all against delegating such a duty to a Select Committee of the House of Commons," they reported that, in their opinion, it was not desirable to proceed with the Bill, and it was thereupon abandoned.

The Report made by the Select Committee was accompanied by the evidence taken thereon, which included the evidence of Mr. J. Fitzjames Stephen, by whom the Bill had been drawn, of Mr. Baron Bramwell\* and of Mr. Justice Blackburn.† The Committee also appended a written memorandum, containing an elaborate criticism of the Bill, from the Lord Chief Justice (Sir Alexander Cockburn).

The first witness examined was Sir James Fitzjames Stephen. And with reference to the proposed 24th section of the Bill, which dealt with the question of insanity, he said, ‡ "With regard to the law upon that subject (Section 24) the standard authority, as the Committee, of course, are well aware, is the opinion of the judges, given in McNaughten's case, although, of course, the Committee are also aware that very eminent judges have greatly doubted the constitutional propriety of putting abstract questions of that kind to the judges and getting such answers from them.

"I have heard more than one of the most eminent judges on the bench express themselves as being doubtful with regard to that authority on that ground. However, as a matter of fact, I think it will not be doubted that, at the present day, it is generally regarded as the leading authority on the subject of insanity. Now, as to that authority, I think this section varies from it slightly, but it varies from it by clearing up what I have always regarded as an ambiguity in the judgment as to a matter upon which the judges may possibly not have felt themselves called upon to give any opinion."

Sir James Stephen then went on to argue that the language of the judges, "that he (the accused party) did not know he was doing what was wrong," was intended to include "morally wrong" as well as "forbidden by law." Sir James then gave a case in illustration of his view, and went on to say, "Now, if you interpret the word 'wrong' as meaning not morally wrong but forbidden by law, that man" (the man whose case Sir James had described) "ought to have been hanged, because he not only knew that the act was forbidden by the law, but the very reason why he did it was because it was forbidden by law. I can

\* Afterwards Lord Bramwell.

† Report, page 8.

Afterwards Lord Blackburn.

hardly argue with anybody who says that a man" (such as the man whom Sir James had described) "ought to be hanged."

The next witness who was examined by the Committee was Lord Bramwell. He objected both to Subsection "C" and to Subsection "D" of the proposed 24th clause, and the whole drift of his evidence was opposed to the idea of doing anything in the direction of diminishing the controlling influence which the fear of punishment might have in deterring what he termed "crazy fellows" from committing unlawful acts. He said,\* "What you want to do is to frighten people, to terrify them; and the way to try who ought to be punished, to my mind, is to try who ought to be threatened with punishment."

Lord Bramwell referred to the case mentioned by Sir James Stephen, and said: "It is the case of a man who supposed that if he could be put to death he would save the world; and then he murders someone to get hanged in order to save the world. Mr. Stephen says: 'Would Baron Bramwell say that he ought to be hung?' I beg to say that is not the question. The question is, what rule you are to lay down; are you to lay down a rule that would exclude his being hung?" . . . "I would not have a law to except this case which would necessarily except others that ought not to be excepted."

Lord Bramwell also objected to Subsection "D" "from controlling his own conduct." He thought that at least this should be qualified by saying "from controlling his own conduct by the ordinary motives of mankind." He had sent to the Home Office this note,† "I vehemently protest against 'D.' What is the meaning of a man being prevented from controlling his conduct? When he is prevented it is because the preventing motives are strong enough. When he is not prevented it is because they are not strong enough. The effect of this would be to lessen the preventing motives."

Further on, Lord Bramwell said, "It is obvious that what is called an uncontrollable impulse is one as to which the deterring or controlling motives are not strong enough; and this is a proposition, in all cases, to take away from a man, in a state of mind in which he is more likely to do mischief than anything else, a deterring motive."

Being asked (Question 186) what he would say to a proposal that the clause should simply say that homicide should not be criminal where, according to the present law, it is not criminal, Lord Bramwell replied, "I think that would be a very great improvement on this Bill, for I think that, although the present law lays down such a definition of madness that *nobody is hardly ever really mad enough to be within it*, yet it is a *logical and good definition*."

Being asked (Question 187) whether Subsections "C" and "D," in his opinion, do not express the state of the law as it now is, Lord Bramwell replied, "I am certain they do not." And then, being asked whether he could state what would express it, he replied (Question 188) "When a man's state of mind is such that he does not know the nature and quality of the act he is doing, for instance, does not know that cutting a man's head off will kill him, like the man who cut off the head of another person in order to see how he looked when he woke; or when his state of mind is such that, although he may know what the result will be, he does not know that it is wrong, then he ought to be acquitted. So also, if he is labouring under a delusion of such a character that, if the delusion were true, he would be justified in the homicidal act, that is to say if he supposes that the man he kills is attacking him, and that it is necessary to defend his life; in all those cases he would be entitled to be acquitted on the ground of insanity. The common notion that a man may be acquitted merely because he is mad is erroneous."

Considerations of space forbid giving the whole of Lord Bramwell's evidence, but one other point must be mentioned. Lord Bramwell objected to the words "Homicide is not criminal" in the 24th Section, unless some words were introduced so as to ensure that persons who might be found insane under its provisions should be detained during her Majesty's pleasure.

\* Report, page 26.

† Report of Homicide Law Amendment Committee, Question 183.

The next witness was Lord Blackburn.

After submitting his observations on the earlier part of the Bill, his lordship went on to say (Question 274), "The next thing that comes here is that homicide is not criminal in cases of insanity. To that I can only say that on the question what amounts to insanity that would prevent a person being punishable or not, I have read every definition which I ever could meet with, and never was satisfied with one of them, and have endeavoured in vain to make one satisfactory to myself. I verily believe that it is not in human power to do it. You must take it that in every individual case you must look at the circumstances and do the best you can to say whether it was the disease of the mind which was the cause of the crime or the party's criminal will. But this I am clear about; Whatever definition you give of insanity it should apply to all crimes."

Being then asked (Question 276) whether he had any criticisms to offer on the 24th clause as it stood in the Bill, Lord Blackburn replied, "With regard to the words 'from knowing that it is morally wrong, or from controlling his own conduct'; these are the definitions that are put in, and these agree pretty nearly with what was said in McNaghten's case, in their extra-judicial opinions, by the judges, in the House of Lords; but we cannot fail to see that there are cases where the person is clearly not responsible, and yet knew right from wrong. I can give you an instance. It was in the case of that woman of whom I was speaking, who was tried for wounding a girl with intent to murder. The facts were these. The woman had more than once been insane, the insanity being principally brought on by suckling her child too long; that was the cause that had produced it before. She was living with her husband, and had the charge of this girl, an impotent girl of about fifteen, who lay in bed all day; she was very kind to her, and treated her very well; they were miserably poor, and very much owing to that she continued to nurse her boy till he was nearly two years old; and suddenly, when in this state, she one morning about eleven o'clock went to the child lying there in bed, aged 15, and deliberately cut her throat; then she went towards her own child, a girl of five or six years of age, of whom she was exceedingly fond, and the girl, hearing a noise, looked up and said: 'What are you doing?' 'I have killed Olivia, and I am going to kill you,' was the answer. The child fortunately, instead of screaming, threw her arms round her mother's neck, and said: 'No; I know you would not hurt your little Mopsy.' The woman dropped the child, went down and told a neighbour what she had done, that she had killed Olivia, and was going to kill Mary, 'but when the darling threw its arms round my neck I had not the heart to do it.' She clearly knew right from wrong, and knew the character of her act; for some little time after that she talked rationally enough, but before night she was sent to a lunatic asylum raving mad; and, having recovered, she was brought to be tried before me at a subsequent assizes. On the definition in McNaghten's case she did know right from wrong. She did not\* know the quality of her act, and was quite aware of what she had done; but I felt it impossible to say she should be punished. If I had read the definition in McNaghten's case, and said, 'Do you bring her within that?' the jury would have taken the bit in their own teeth, and said, 'Not guilty on the ground of insanity.' I did not do that. I told them that there were exceptional cases, and on that the jury found her not guilty on the ground of insanity, and, I think, rightly."

Lord Blackburn then added, "On this definition" (that is to say on the definition of the proposed 24th section) "I think you would be obliged to say that woman was guilty."

It is most important not to overlook this point. Lord Blackburn, it will be seen, distinctly expresses the opinion not only that the case which he related did not come within the terms of the answers of the judges of 1843, but also that, in his view, the proposed 24th section of the Bill of 1874 would have equally failed to cover it.

Mr. Russell Gurney then said (Question 277), "There were delusions, were

\* In the sentence "She did not know the quality of her act," the word *not* in the printed report (page 41) would appear to be an error.

there not?" to which Lord Blackburn replied, "No. There was the subsequent evidence that before night she was so mad that they had to send her to an asylum; but before the crime, and for some time afterwards, there was nothing whatever to show a delusion. But I fear a general rule of this sort, making it a question for the jury whether the disease was the efficient cause of the act, would be leaving the thing at large. I have never been able to assign a definition satisfactory to my own mind, and will not pretend to do so."

With reference to this very striking case, so graphically related by Lord Blackburn, I have on a former occasion offered a few observations, some of which I venture to reproduce here.

The word "suddenly," which Lord Blackburn uses to express the manner in which the poor woman killed her child, is liable to be misleading. The woman became an inmate of Broadmoor, and told me all about the matter. She said that she was very much depressed and weakened by suckling her infant, and that the catamenia had returned, and she had suffered a great deal from haemorrhage, and, on the previous day, Sunday, she knew she was "getting bad again"—to use her own phrase. Two years before she committed this murder, she had attempted to drown herself and her child, but was rescued. She says she could not accurately describe what she felt, but she remembers that she did not want to live, and she felt it to be a right thing to kill the children before she killed herself. She says also, and this is the point to which I wish to call attention, that she lay awake the whole of the Sunday night harbouring and pondering over her intention. She says that when her husband got up in the morning he said, "How are you?" She said, "Better," in order to induce him to go to his work and leave her; and then, after her husband had gone, she committed the murder. This is the history of all the cases of this kind of which I have been able to ascertain the real facts. The acts, in the absence of delirium, or sudden provocation, are commonly pre-meditated, and are the result of delusion, or, what comes to be the same thing, of an insane train of thought; and these cases must, therefore, be ranked in the same category as the case of Hadfield. The poor woman, whose case is so graphically related by Lord Blackburn, was unquestionably insane, and unable to rightly estimate the moral character of her act; but we must not overlook the lesson to be learned from the fact that the act was premeditated, and that the mode in which it was to be accomplished was carefully thought out. If it were urged, in the case of this poor woman, that although she knew that she was committing a wrongful act, yet that she was unable to control her conduct, the question might well arise as to what precisely is to be understood by these words, seeing that she controlled herself during the whole of the night, and that she continued to control herself when she told her husband in the morning that she was better.

After Lord Bramwell and Lord Blackburn had given their evidence, Sir James Fitzjames Stephen was recalled; and, in the course of his re-examination, he said (Question 313), "I need not say anything of Baron Bramwell's evidence on the subject of the *principle* of the Bill, because Baron Bramwell approves. Mr. Justice Blackburn disapproves of it, upon the ground, which is very familiar to all persons who have taken much interest in discussions about codifying the law, that an uncodified state of the law is better than a codified state of the law, inasmuch as the law possesses a quality which he describes as elasticity, and which he regards as a good thing, but which I and some others should describe as uncertainty and vagueness, and regard as a bad thing."

Sir James Stephen then referred to a case, not connected with the subject of insanity, which had been discussed by him in his original examination and which had been afterwards discussed by Lord Bramwell and Lord Blackburn, and went on to say: "If I may be permitted to say so without impertinence, I suppose it would be impossible to find two higher authorities upon such a point than Baron Bramwell and Mr. Justice Blackburn, and they flatly contradict one another."

Sir James Stephen then went on to say, "Take another point. Baron Bramwell thinks that the law of England is such that insanity hardly ever, under any circumstances, excuses a man from crime; in fact, in one of his answers he goes so

far as to say that he holds the definition of insanity to be logical and correct, but does not believe that anybody ever was mad enough to fall within it. Practically, that comes to the same thing as saying that madness makes no difference as to responsibility. Mr. Justice Blackburn says, on the other hand, that the section drawn in the Bill pretty nearly represents the existing law as it is, and, if it errs, it errs in defect, because it does not take in certain cases which ought to be taken in. He adds that, in a particular case which he had to try, thinking that the existing law was, I suppose, in a very elastic condition, he took upon himself to tell the jury that there were exceptional cases which came under no rule, and that they ought to acquit the woman who was on her trial on the ground of insanity, although no authority could be found for it and although Baron Bramwell, an equal authority, considers that the woman under such circumstances ought not to be acquitted, as it was perfectly certain she was by law guilty. I do not wish to follow the matter out, because I do not wish to be considered as saying a word implying disrespect to either of those learned judges. But when you find two learned judges of the highest eminence directly contradicting each other on matters of the first importance, matters on which the life and death of persons tried before them might depend, and one of them praising that state of things as a proof of the elasticity of the common law, I can only say that I feel surprised, and cannot agree with that learned judge's praise of its elasticity. Baron Bramwell speaks quite in the opposite sense, and expresses entirely my own opinions on the matter, namely, that it is eminently desirable that you should have definitions, and that those definitions should state plainly what the law is."

The Lord Chief Justice, Sir Alexander Cockburn, was not examined by the Committee, but he submitted a written memorandum,\* in the course of which he said that, although a strong supporter of codification, he objected to the Bill as being a partial and incomplete attempt at codification.

The Lord Chief Justice went on, however, to discuss the general provisions of the Bill, and, with respect to the 24th clause, made the following comment:—"As the law, as expounded by the judges in the House of Lords, now stands, it is only when mental disease produces incapacity to distinguish between right and wrong that immunity from the penal consequences of crime is admitted. The present Bill introduces a new element, the absence of the power of self-control. I concur most cordially in the proposed alteration of the law, having been always strongly of opinion that, as the pathology of insanity abundantly establishes, there are forms of mental disease in which, though the patient is quite aware he is about to do wrong, the will becomes overpowered by the force of irresistible impulse; the power of self-control when destroyed or suspended by mental disease becomes, I think, an essential element of responsibility."

In the course of his letter the Lord Chief Justice made also these further observations:—

"But there is one general provision on this subject to which I must strenuously object; it is that 'if a person is proved to have been labouring under any insane delusion at the time when he committed homicide, it shall be presumed, unless the contrary appears or is proved, that he did not possess the degree of knowledge or self-control hereinbefore specified.'

"The pathology of insanity shows that the mind may be subject to delusions which do not in any degree affect the moral sense, or the will, as regards the power of self-control. The mere existence of mental delusion ought not to affect the decision as to the power of self-control unless the nature of the delusion be such as legitimately would lead to the inference that the power of self-control was wanting. The question is one which should be decided by all the circumstances, independently of any presumption one way or the other."†

A fairly good idea may be gathered from the foregoing extracts of the difficulties that lie in the way of attempting to frame a definition of the kind and degree of insanity that should, in all cases, render a person not liable to punishment by the

\* Report, page 63.

† Report, page 66.

ordinary criminal law—a definition, that is to say, that would include all cases which ought to be included, and at the same time that would not include others which ought to be excluded.

The differences of opinion between Lord Bramwell and Lord Blackburn are pointed out with sufficient emphasis by Sir James Fitzjames Stephen, but it will be observed that Sir Alexander Cockburn differed in some respects from both.

Lord Blackburn thought that "C" and "D" agreed "pretty nearly" with the answers of the judges of 1843, and that they did not go far enough to include some cases which ought to be included, whilst, on the other hand, Lord Bramwell objected strongly to both "C" and "D," and was quite certain that they did not express the state of the existing law. Sir James Stephen, who was in favour of the adoption of both "C" and "D," spoke of them as varying "slightly" from the answers of the judges, but as differing only by clearing up an ambiguity; whilst Sir Alexander Cockburn spoke of "D" as introducing a new element, and went on to say that he concurred "most cordially" in the proposed alteration. But he objected strenuously to the paragraph with reference to the effect of delusions.

It must not be forgotten either that, quite apart from any particular formula, differences of opinion, more or less pronounced, are by no means unknown, not only in criminal cases, but also in civil cases, in which questions relating to insanity are involved. Abundant illustration of this may be found in cases in which the question to be determined was whether the persons who were the subjects of the inquiries were or were not capable of managing themselves or their affairs, or in cases in which the question was whether certain persons who had been received for treatment in an unlicensed house were or were not insane. And then, too, with respect to criminal cases, not only do we find that honest differences of opinion arise over individual cases, but it may be observed that in the past absolute unanimity of opinion has not prevailed, even with regard to general principles; so that whilst, on the one hand, we find that great legal authorities such as Coke and Hale and Blackstone speak of the execution of a madman as being "a miserable spectacle, both against law, and of extreme inhumanity and cruelty," we find, on the other hand, a small minority not indisposed to agree with Smollett, who, it may be remembered, was a member of the medical profession, and who yet, in the remarks which, in his *History of England*, he makes upon the case of Earl Ferrers, expresses the opinion that "Perhaps it might be no absurd or unreasonable regulation in the Legislature to divest lunatics of the privilege of insanity, and, in cases of enormity, subject them to the common penalties of the law."—(*History of England*, by T. Smollett, M.D., 1805, Vol. v., page 208.)

As bearing upon the opinions expressed by Smollett, it is interesting to note the remarks recently made by the late Lord Chief Justice, Lord Coleridge, who, at the trial of a man named Oats at the Bodmin Assizes in February, 1891, is reported by the *Western Morning News* for February 28th of that year to have observed in his address to the Grand Jury that "It was said by a legal authority when he was a young man that if a person was found guilty of murder he should be hung, whether he was sane or not, for if he was sane he deserved it, and if he was mad it was to him no harm. That seemed to him to be a horrible doctrine, and he was glad to find it was no longer held."

Looking broadly at the matter, however, the point which is, of all others, the most important is as to the manner in which the terms of the answers that were given by the judges in the year 1843 are now, in actual practice, construed by their successors at the present day.

We have seen how the late Mr. Justice Fitzjames Stephen held that the answers were capable of being so construed as to dispose satisfactorily of all cases whatever. But we have also seen, on the other hand, how the late Lord Bramwell considered "That although the present law lays down such a definition of madness that nobody is hardly ever really mad enough to be within it, yet it is a logical and good definition." And that this was not a hastily-formed opinion on the part of Lord Bramwell is shown by the evidence given by his lordship, in 1865, before the Capital Punishment Commission, and also by an article contributed

by him, in 1885, to the December number of the *Nineteenth Century*, in which, it may be observed, he speaks of the law as a "right law—right to demonstration."

It will be remembered too that Sir James Fitzjames Stephen, in his *History of the Criminal Law*, expresses himself as follows:—

"What, then, is the meaning of a maniac 'labouring under such a defect of reason that he does not know that he is doing what is wrong?' It may be said that this description would apply only to a person in whom madness took the form of ignorance of the opinions of mankind in general as to the wickedness of particular crimes—murder, for instance—and such a state of mind would, I suppose, be so rare as to be practically unknown. This seems to me to be a narrow view of the subject, not supported by the language of the judges. I think that anyone would fall within the description in question who was deprived by disease affecting the mind of the power of passing a rational judgment on the moral character of the act which he meant to do. Suppose, for instance, that by reason of disease of the brain a man's mind is filled with delusions which, if true, would not justify or excuse his proposed act, but which in themselves are so wild and astonishing as to make it impossible for him to reason about them calmly, or to reason calmly on matters connected with them. Suppose, too, that the succession of insane thoughts of one kind and another is so rapid as to confuse him, and finally, suppose that his will is weakened by his disease, that he is unequal to the effort of calm sustained thought upon any subject, and especially upon subjects connected with his delusion, can he be said to know, or have a capacity of knowing, that the act which he proposes to do is wrong? I should say he could not."\*

Certainly, in recent years, the manner in which juries have been directed by judges goes very far towards confirming the view of Mr. Justice Stephen, as will appear from an examination of reported cases, some of which we may now proceed to notice.

Mr. Justice Stephen, in the course of his charge to the jury at the trial, for murder, of a man named David Davies, at the Glamorganshire Spring Assizes in 1888, is reported to have expressed himself as follows (*vide the Western Mail*, March 15th, 1888): "It is said that, according to the law, a man is responsible for his acts when he knows that the act is wrong, and that is true. Now medical men frequently say that many persons who are really mad do know that the act is wrong. Now, if you will exercise your judgment in the matter, you will probably see that knowing the act is wrong means nothing more nor less than the power of thinking about it the same as a sane man would think about it."

Again, in the case of Richard Coolidge Duncan, tried at the Carnarvon Assizes in July, 1891, before Mr. Justice Lawrence, on the charge of wounding his wife with the intent to kill her, the learned Judge in his charge said:—

"The jury should consider three questions in estimating the prisoner's sanity:—

"I. Did he know what were the physical consequences of his act?

"II. Did he know that it was wrong?

"III. If he knew that the act was wrong, had he sufficient strength of will to abstain from doing it?"

The jury found the accused insane.—Reported in *North Wales Chronicle*, July 18, 1891, and *Carnarvon and Denbigh Herald*, July 17th, 1891.

Again, at the trial of a man named William Burt, at the Norwich Assizes, on the 9th of November, 1885, on a charge of feloniously causing grievous bodily harm, the report given in a local paper, the *Norfolk Chronicle*, states that Mr. Justice Stephen, having explained the state of the law as to what constituted irresponsible action, added that: "If a man were in a state of passionate rage, excited by disease, which violently interfered with his actions, so that he had not a fair capacity to weigh what he was doing, or to know that his act was wrong, he was not responsible. They had not to consider whether a man had a particular disease, but whether his conduct was, in itself, sane; and whether he acted from ordinary wicked motives, or under the influence of disease. In this case there

\* *History of Criminal Law of England*, Stephen, Vol. ii., page 163.

appeared to be a mixture of motive. The prisoner was jealous, and he also suffered from epileptic fits, which produced mad, causeless violence. But, if a man acted partly from a common motive and partly from disease, he (his Lordship) suggested it was for a humane jury to give the man the benefit of the doubt, and take into consideration whether they would not have him taken care of, instead of subjecting him to punishment. If there was epileptic fury and insanity mixing with ordinary resentment and causeless jealousy, and a man acted from both motives, his lordship thought the general spirit of the law and its administration suggested that the prisoner should have the benefit of any doubt which arose."

The jury found the prisoner insane.

In the case of *Regina v. Gill*, tried at the Yorkshire Spring Assizes in 1883, before Lord Justice Kay (at that time Mr. Justice Kay), and reported in the *Leeds Mercury* of the 28th of April, 1883, the learned Judge, in charging the jury, is reported to have said that "he did not agree that to prove a man to be insane it was necessary to show that he did not know what act he was then doing, or what was right or wrong. There was another thing which might also justify a jury in finding a man insane; that was if the condition of his mind, from disease, was such that he was subject to uncontrollable impulses. If the prisoner acted under an impulse of this kind, the jury would be justified in finding him irresponsible for his act, on the ground of insanity."

In this case, however, the jury did not find the prisoner insane, but found him guilty of unlawfully wounding, and the Judge sentenced him to five years' penal servitude.

In the course of a discussion which took place in the columns of the *Times* in the autumn of 1894 a very painful case was referred to, in which a member of the bar, held in high esteem for his public and private virtues, was assassinated by one of the inmates of a lunatic asylum which he was visiting. And, in the course of some comments on that case, contained in a letter to the *Times*, dated September 4th, 1894, Sir Herbert Stephen writes:—"I think that if the coroner, magistrates, prosecuting solicitor, counsel, and judge had all been perfectly judicious and well acquainted with their legal duties, that person would have been condemned to death."

Now, with this expression of Sir Herbert Stephen's opinion, it will be interesting to compare the words of the learned Judge who tried the case, and who spoke with a full sense of the responsibility of his office, and in complete possession of all the facts. The trial took place before the Lord Chief Baron of that date—Sir Fitzroy Kelly—and, in the report of the trial given by the *Salisbury Journal* of July 26th, 1873, it is stated that the learned Judge addressed the jury as follows:—

"I do not know what inference you may draw from the evidence, but surely you are not to condemn a man to death for an act committed in a lunatic asylum, seeing that he had been an inmate of it for twenty-one years and an inmate also of another lunatic asylum for six or seven years previously, and seeing that he has suffered during all that time under chronic mania, and that a gentleman who appears as a witness for the prosecution, and who has been familiar with the prisoner's conduct and his habits and with the sad disease under which he labours, tells you his opinion is that he is not responsible for his actions. I think, whatever further evidence may be forthcoming, it will be for you to consider whether you could pronounce a verdict which would consign him to the gallows after the evidence which has been laid before you. If, on the evidence, you think he is not responsible for his actions, and that he was in an unsound state of mind on the 21st of May, it will be your duty to return a verdict of not guilty, in which case he will be kept in confinement during her Majesty's pleasure. If you desire, however, that the case should go further do not let anything that has fallen from me prevent you from hearing additional evidence."

The jury then returned a verdict, in the terms at that time, 1873, in use, of "Not guilty on the ground of insanity."

It will be observed that the Lord Chief Baron did not consider that he was in

any way hampered by any rigid formula that would be contrary to what he deemed to be right.

The following case may be cited, which was tried at Kingston, in Surrey, on the 4th of April, 1872, and was reported in the *Times* of the following day. The case was one of murder by shooting with a revolver. In charging the jury, the Lord Chief Justice (Bovill) is reported to have said:—"If anyone in his right senses kills another he is, *prima facie*, guilty of murder. And, *prima facie*, every person must be presumed to be in his right senses, and therefore to be responsible for his acts. But this applies only in the absence of evidence of unsoundness of mind, and there is evidence here that the mind is unsound. Then it is so difficult to trace the workings of a mind that is unsound that the presumption no longer applies; and, if the evidence satisfies you that the prisoner at the time he committed the act was not in a state to distinguish right from wrong, and was not capable of controlling his actions, then he would not be responsible for the act he committed."

The jury found the accused insane.

And, with reference to the presumption of insanity in criminal cases, the observations of Mr. Justice Deanman in the case of Mr. Gilbert Scott may be cited. His lordship is reported, in the *Times* of April 8th, 1884, to have said that "a man must be taken to be sane until he is shown to be the contrary. But, if a man is proved to be insane in July, August, and September, and so on in each following month, and was then tried for murder in April, he (the learned Judge) would never tell the jury that it was necessary still to presume sanity, as though the contrary had never been shown. If insanity had been established, and had gone on for some time, then, in spite of the legal presumption, a different state of things would be raised in the minds of those who, as reasonable men, had to judge of what followed."

Other cases, such, for example, as the case of Brocklehurst, might be cited for the purpose of illustrating the manner in which the question of insanity is sometimes dealt with by judges in actual practice. Brocklehurst was tried at the Cheshire Assizes in October, 1884, before Mr. Justice Cave on a charge of feloniously wounding his wife; and a report of the trial is given in the *Macclesfield Courier and Herald* for November 1st of that year. In the course of the trial evidence was given to the effect that the accused had been an inmate of the County Lunatic Asylum from April to July, and that after his return home he began to accuse his wife of putting something into his food for the purpose of poisoning him, and that, under the influence of these and other delusions, he attacked his wife with an iron coal scraper.

He afterwards said he had done what he wanted, and that he meant to go to the gallows, indicating by that remark that he was clearly aware of the illegality of his act.

When counsel was about to address the jury on the question of the prisoner's insanity his lordship interposed with the remark that the doctor had said distinctly that the prisoner was of unsound mind. Counsel suggested, however, that the question for the jury was whether the prisoner was capable of appreciating the difference between right and wrong; but to this his lordship replied, "No; the question is whether he was insane at the time; and if a man is suffering from delusions and he attacks his wife with a scraper in consequence, it is as clear as anything can be that the man is mad." To the jury: "Do you feel any difficulty about it, gentlemen?" The Foreman: "Not the slightest." His lordship: "It is as clear as can be."

The verdict was that the accused was guilty of feloniously wounding, but that he was insane at the time of committing the act, and he was ordered to be detained during her Majesty's pleasure.

In this connection, too, we may quote Lord Campbell, who, in the discussion on McNaughten's case in the House of Lords, said (*Hansard*, 3rd series, Vol. lxvii., p. 288 *et seq.*) "Unless it were proved that insanity existed at the time the act was committed, and that such insanity might be duly considered the immediate cause of the criminal act, there was, at present, no immunity from conviction and punishment."

From which it may be fairly assumed that Lord Campbell implied that the converse would also hold good.

It must not be overlooked that, somewhat more than ten years ago, certain amendments, not only in the statutes but also in procedure, were introduced which have not been without effect.

Thus, in the year 1883, an Act was passed entitled the "Trial of Lunatics Act" (46 and 47 Vict., cap. 38), by which, as has been already pointed out at the beginning of this memorandum, the first section of the Act of 1800 was repealed, and other different provisions were made.

A further step was taken in the following year, when some of the statutes relating to Criminal Lunatics were consolidated and revised by the "Criminal Lunatics Act, 1884" (47 and 48 Vict., cap. 64).

In addition to sundry other amendments this Act contains provisions by which the Secretary of State is empowered to attach to the discharge of a criminal lunatic whatever conditions he may think fit; and, further, to order the return into custody of a person so discharged in the event of any of the conditions being broken, or if it should appear that such person had, from any cause, become unfit to remain at large; and thus, in the case of every person who may be found by the jury at his trial to have been guilty of the offence charged against him and yet to have been insane, every care is taken to afford protection against the commission of any further injury by the same person; whilst provision is made by which the accused not only at once receives such care and treatment as his insane condition may require, but by which it is also ensured that his detention and the deprivation of liberty shall not be continued longer than actually necessary in the interests of public safety.

The "Criminal Lunatics Act" also prescribes the manner and the circumstances under which persons may be removed from prisons to asylums on the ground of insanity, either whilst awaiting trial or at a later stage. It will be observed that for the purpose of such removal, not only are the certificates of two medical practitioners and of two members of the Visiting Committee of the prison required, but the approval of the Secretary of State is also necessary. And it will be further observed that in the case of a prisoner under sentence of death there is an additional precaution. In other cases the members of the Visiting Committee "call to their assistance two legally qualified medical practitioners;" but in the case of a prisoner under sentence of death the two medical practitioners are specially appointed by the Secretary of State himself.

With reference to the medical staff of the prisons, it is very satisfactory to observe that the recent Departmental Committee recommend, amongst other things, in their Report, presented to both Houses of Parliament in April, 1895, that candidates for medical appointments in prisons should be required to show that they have given special attention to lunacy; and, also, that weakminded prisoners should be concentrated, as far as possible, in special prisons, and should be under special medical supervision.

It is further to be observed that in the same year in which the "Criminal Lunatics Act" was passed, that is to say in the year 1884, a very important amendment was also introduced into the procedure, in laying evidence before the jury, in those cases in which the accused is alleged, or is believed, to be insane. This amended procedure was explained, in the House of Commons, by the Attorney-General of that day, Sir Henry James (now Lord James of Hereford), on March 17th, 1884, of which a report is given in *Hansard*, 3rd series, Vol. cclxxxvi., page 40. In the course of his remarks Lord James said, "Perhaps it will be the better course for me, in answer to the question of my honourable friend, to state what directions I have given to the Director of Public Prosecutions. I lately received a communication from the Home Office to the effect that, in some recent cases, great inconvenience, if not injustice, had resulted from no responsible person being in charge of cases when the life of the accused was at stake. I was also informed that the Home Office had found great difficulty in dealing with cases of alleged insanity, in consequence of the facts not being brought before the jury, and being only suggested after the trial. It seemed to me, therefore, advisable to take steps to ensure that all evidence bearing on the case, whether tending to

prove the guilt or the innocence of the prisoner, should be placed before the jury and, with that object, I have requested that, whenever an accused person is brought before justices on a capital charge, the magistrates' clerk shall communicate with the Solicitor of the Treasury, and that that officer shall take charge of the prosecution, unless he finds that some competent private person or local body has the conduct of it; but, in the absence of such proper conduct, it will be the duty of the Treasury Solicitor, acting as the Director of Public Prosecutions, to see that the evidence in every capital case is brought fully before the jury. I have also requested that, in those cases where insanity in the accused is alleged, full inquiry shall be made, and, in the absence of his ability, or of the ability of his friends, to produce witnesses, the Treasury Solicitor shall secure their attendance.

With reference to the foregoing statement of the Attorney-General, it will be observed that, at the date when that statement was made, in March, 1884, the Solicitor of the Treasury is referred to as an officer who, at that time, *acted* as the Director of Public Prosecutions. In the month of August, however, of that year, an Act was passed (47 and 48 Vict. cap. 58), by which the Treasury Solicitor *became* actually the Public Prosecutor. The exact words of the Act are "the person for the time holding the office of Solicitor for the affairs of Her Majesty's Treasury shall be Director of Public Prosecutions."

In giving effect to the instructions, that in those cases where insanity is alleged "full inquiry shall be made" it is now the practice of the Public Prosecutor, in cases of the kind, to make application to independent medical men and to request them, if they are willing so to do, to examine the accused before the trial, and to draw up a report as to the mental condition of the accused, for the information of counsel and of the Court. But this action on the part of the Public Prosecutor does not in any way prevent the accused from bringing forward whatever additional evidence he or his advisers may think desirable.

The object of the Public Prosecutor is to obtain, if possible, an absolutely impartial opinion, and then, at the trial, to lay that opinion, together with all the facts of the case, so far as they can be ascertained, fully and completely before the Court.

What, then, it may be asked, are the actual results? And to this question an answer may be found in the Annual Reports of the Public Prosecutor.

In the Return relating to the Prosecution of Offences Acts, ordered by the House of Commons to be printed, on the 7th of April, 1893 (No. 162), the Public Prosecutor reports, at page 16, that all charges of murder are, and that most charges of manslaughter and of other serious offences against the person are, or ought to be, brought to his notice, so that he may exercise the discretion imposed upon him with reference to this class of indictable offences. And then he goes on to give the following statistics. The number of cases of capital offences brought to his notice in the three years 1890, 1891, and 1892 was 209, the disposal of which was as follows:—

Verdicts of wilful murder returned, and sentences of death passed	...	...	55
Found to be insane	...	...	51
Verdicts of not guilty	...	...	40
Found guilty of manslaughter or of some crime less than murder	...	...	63
			—
			Total 209

The foregoing figures, which, it may be observed, refer only to England and Wales, show that whilst, in the three years under review, the number of persons charged with capital offences, who were sentenced to death, was 55, the number charged with capital offences, who were found to be insane, was 51, a number not much less than the number of those who were sentenced to death. And with these figures before us it is clear that, in actual practice, the law is not now interpreted in the manner in which Lord Bramwell understood it when he said that "the present law lays down such a definition of madness that nobody is hardly ever really mad enough to be within it." On the contrary the figures which have been quoted would appear to show that the interpretation placed by

judges at the present time upon the language of their predecessors is such as to attain the result which Sir James Fitzjames Stephen indicated, and, virtually, "to dispose satisfactorily of all cases whatever."

Having reached this point, it may be useful to ask ourselves these questions:—

I. Is it the fact that all cases are, at the present time, satisfactorily disposed of?

II. If it is not the fact, would not our right course be to draw up a list of recent cases which are considered to have not been satisfactorily disposed of, and then to endeavour to ascertain whether, in each case, such failure has been due, (a) to the terms of the answers given by the judges in 1843, or (b) to some other cause?

III. Another question that might perhaps arise is, whether a case can be said to have been "satisfactorily" disposed of if such case has been decided in a manner which would appear not to be in absolutely strict conformity with what, by some commentators, has been regarded as the precise meaning of the terms employed by the judges in the year 1843?

But, with respect to this point, it may perhaps be permissible to suggest that the answers given by the judges, in 1843, were given by them for the use of other succeeding judges; and that, if the present distinguished occupants of the bench are able to perceive the possibility of placing upon the terms of those answers an interpretation capable of disposing satisfactorily of every case, it would hardly appear to be for us to attempt to call in question their right so to do.

#### MURDER BY A PATIENT IN THE DUNDEE ASYLUM.

The Dundee Royal Asylum was recently the scene of a murder by a patient named Redmond, who while at work in the grounds suddenly attacked an attendant with a spade, inflicting serious injuries, and killing outright a fellow patient who came to the rescue. A brother of this patient is reported to have committed homicide. This would appear to be one of those regrettable incidents which constitute the penalty for the innumerable advantages resulting from the modern system of employment of the insane; calling not only for sympathy with the sufferers, but also with the physicians under whose supervision they happen.

#### PRINCELY HEREDITARY MENTAL DEGENERACY AND MONOMANIA.

Prince Charles de Loos Corswarem was tried before the Correctional Tribunal of Brussels, in February, on charges of swindling and forgery extending over several years. He had obtained "millions of francs" from usurers and others raised on the dowries of ladies whom he was about to marry. He was acquitted, firstly, because he was irresponsible, and secondly, because the charges were not proven. This form of insanity would appear to be associated with a large amount of method.

#### THE INSANITY LAW.

The Legislature of New York State is proceeding to codify the laws relating to insanity, and the *Medical Record* (7th March, 1896), while justly urging the increase of the Lunacy Commission to eleven members, denounces the provision which is proposed that the medical member "shall have had five years' actual experience in the care and treatment of the insane, and is, or has been a Superintendent or first Assistant Physician of a State Hospital."

The *Record* goes on to recommend that the appointment should be filled by a practitioner experienced in the field of neurology, since "no one trained in asylum methods could detect the errors in the treatment of the insane in these institutions." In other words the view of the *Record* seems to be that the less a man knows about insanity the better qualified he is to act as a Medical Commissioner. In this view, the writer of the *Record* article should be an eligible candidate, but perhaps he is not a neurologist.

## CORK ASYLUM.

In view of the overcrowding in this institution for some time past, the Board of Governors has adopted a suggestion that a hospital should be built on grounds adjoining the asylum, which should be a complete establishment in itself, and to which all curable cases should be removed. We congratulate the Board on their decision.

## WOODILEE ASYLUM.

An action, brought by the Barony Parish of Glasgow *v.* the General Board of Lunacy, contended that Woodilee was a Public or Parochial Asylum, and that in either case a license from the General Board was not required, nor that the Board were not entitled as a condition of license to prescribe the number of the Managing Committee. Lord Low, before whom the action was brought on appeal, decided in favour of the Barony Parish.

## THE DUXHURST HOSPITAL HOME FOR LADY INEBRIATES.

This home, The Manor House, Duxhurst, near Reigate, has been recently opened under the auspices of Lady Henry Somerset, for the treatment of ladies suffering from alcoholism or narcotism.

The house, formerly a gentleman's residence, is admirably adapted for its present use, surrounded by extensive gardens, grounds, and farm, with fine views and in good air, between three and four miles from Reigate. It is thoroughly in the country, the nearest beerseller being a mile and a half distant. The water supply is good and the drainage has been arranged by Mr. Rogers Field.

In addition to the usual means of recreation, special provision has been made by the engagement of a trained lady gardener, to give gardening occupation, not only out of doors, but also in extensive glass houses which have been erected to this end. This is evidently a most valuable adjunct to the treatment.

The terms vary from two to five guineas.

Having inspected the home, we have formed a very favourable estimate of its advantages, and heartily wish success to so charitable an undertaking.

At a second home at some little distance on the same estate, patients of a less educated class are received at a lower rate, the maximum being thirty shillings per week.

A third establishment, also at a convenient distance, receives habitual inebriates of a still lower class, who have been imprisoned, etc.

These are accommodated in six prettily constructed cottages specially built for the purpose; each cottage receives six patients under the care of a nurse, and there is a central building for the kitchen, dining hall, and recreation room. The whole constitutes one of the best arrangements for the management and treatment of this class of invalids that has been established in this country.

## THE MORISON LECTURES.

The Morison lectures for the present year have been delivered by Dr. Alexander Bruce, who has chosen for his subject "The Nerve Tracts and Connections of the Special Nerves in the Spinal Cord, Mid and Hind Brain."

The publication of these lectures will be awaited with interest by all who have not had the good fortune to attend their delivery.

## LUNACY COMMISSION IN IRELAND.

The following gentlemen now serve as Commissioners for general control and correspondence, and for the superintending and directing the erection, establishment, and regulation of asylums for the pauper lunatics of Ireland:—The Rt. Hon. Mr. Justice Holmes, Mr. Thomas Robertson, Dr. O'Farrell, Dr. Courtenay, F. R. Cruise, M.D., Mr. David Drummond, and Mr. Charles Kennedy. It will be observed that the retirement of General Sir R. H. Sankey, R.E., from the chair-

manship of the Board of Public Works has been followed by the appointment of Mr. Robertson, who succeeds him in that office as well as on the Board of Control.

#### DR. NICOLSON.

We have pleasure in recording the presentation to Dr. Nicolson, by the officers and staff of the Broadmoor Asylum, of a silver bowl, with appropriate inscription, on the occasion of his resigning his post at that asylum.

#### OBITUARY.

##### DR. SEMAL.

We regret to have to record the death of Dr. François Joseph Semal, physician and director of the great asylum at Mons, on the 16th May. We hope to give an account of Dr. Semal's life and work in the next number of the Journal.

#### PARLIAMENTARY INTELLIGENCE.

##### *Alleged Increase of Insanity.*

Mr. Corbet has given notice of a resolution that "it is desirable that an International Commission be convoked to inquire into this matter."

Sir M. W. Ridley, in answer to a question by Mr. Hobhouse, said that "he had suggested to the Lord Chancellor" that the Lunacy Commissioners should "make special inquiries as to the causes of the increase of lunacy, and embody their conclusions in the next annual report."

##### *Private Lunatic Asylums.*

Mr. Corbet (21st February, 1896) asked whether, in view of the recent case in which a sane lady was shut up in a private asylum, the Home Secretary would take any steps for their abolition? The latter, in answer, said that the Lord Chancellor had a Bill in preparation which, among other things, aimed at the improving and extending the precautions against any abuse of the Lunacy Laws.

##### *Irish Pauper Lunatics.*

The Poor Relief Bill for Ireland, the Chief Secretary states (24th April), will deal with the detention of lunatics in workhouses.

##### *Deportation of Paupers.*

In answer to questions referring to the removal of a pauper from Eltham, in Kent, to Dublin, and of a lunatic pauper from Glasgow to Banbridge, in Ireland, the Chief Secretary said "that that was the subject of communication between the authorities in England, Ireland, and Scotland."

##### *Suicides at Sea.*

Mr. Akers Douglas (23rd April) stated, "That the attention of the Board of Trade had been called to the large number of suicides among firemen and trimmers in the mercantile marine, and that further information was being collected."

##### *Habitual Drunkards.*

Sir M. W. Ridley (24th February, 1896), in answer to a question by Mr. Pease, said that "a measure for the treatment of this one class of offenders is in preparation, and will shortly, I hope, be introduced."

On April 16th he said, "The Bill is in draft . . . but the details, especially from a financial point of view, require the most careful consideration. . . . I cannot say when I shall be able to introduce it."

Sir M. W. Ridley has also said that the Bill would be founded on the recommendations of the English Departmental Committee on Inebriates.

*Evidence in Criminal Cases Bill.*

This Bill was introduced by the Lord Chancellor, and has passed its third reading in the House of Lords.

It proposes to enact that "a person charged with an offence, and wife or husband, become competent witnesses."

The person charged with an offence on giving evidence is not to be cross-examined as to character.

## NOTICES BY THE REGISTRAR.

*Examination for the Certificate of Proficiency in Nursing.*

Applications were received from 491 candidates for admission to the recent examination. These were drawn from 27 English, nine Irish, and seven Scotch Asylums. The returns show that of this number 397 were successful, 86 failed to satisfy the Examiners, and eight withdrew. The following is a list of successful candidates :—

(The letters *C*, *S*, and *W* indicate respectively the number of candidates who entered for the examination, who were successful, or who, for any reason, withdrew.)

*Durham County Asylum, Winterton* (*C*, 21; *S*, 15; *W*, 0).—*Males*: Thomas S. Bellas, Frederick Hewston, Robert Alexander Larkin, Arthur Mitchell, William T. Wailes, Thomas L. Walker. *Females*: Jennie Applegarth, Charlotte Balshaw, Arabella Berryman, Sarah E. Foster, Annie Jackson, Emma Maughan, Hannah Maughan, Ellen L. Masters, Annie E. Smith.

*Kent County Asylum, Charltham* (*C*, 3; *S*, 3; *W*, 0).—*Males*: George Barnes, William Henry Hucks, John D. Stott.

*London County Asylum, Claybury* (*C*, 49; *S*, 37; *W*, 2).—*Females*: Annie Brews, Amy Brooks, Catherine Cleary, Minnie L. Cornwall, Maude Cooper, Rose Chivers, Mary Coughlin, Lucy Clark, Hannah French, Emma French, Emma L. Goodwin, Rosina Golden, Florence Hiscox, Alice Hoffman, Jennie Hughes, Katherine Jones, Florence S. Johnson, Annie Kidd, Gertrude E. Lane, Mary Lord, Lottie Lucas, Frances B. Melbourne, Beatrice Matthews, Ada M. G. Missenden, Elizabeth A. Nash, Annie Price, Annie Pashley, Bessie Perrin, Emily Jane Smith, Annie Smallbone, Harriet E. Thorogood, Sissie Voisey, Alice Williams, Ellen Winstanley, Sarah J. Withers, Sarah Wood, Fredericka Werry.

*Lancashire County Asylum, Rainhill* (*C*, 26; *S*, 13; *W*, 3).—*Males*: William Ashworth, Arthur Harvey, Arthur John Hanrahan, William McBain, Percy Smith. *Females*: Susannah Balls, Annie G. Baxter, Mary E. Currie, Mary E. Denton, Therese Daly, Clara Fryer, Clara Molyneux, Margaret Parker.

*Oxford County Asylum, Littlemore* (*C*, 11; *S*, 11; *W*, 0).—*Males*: Joseph Challis, Francis Costar, Frank E. Truss, Thomas Wyatt. *Females*: Jane Bonham, Emma Eeles, Clara Gentle, Annie E. Golding, Rose M. Titcombe, Florence M. Tompkins, Sarah Webster.

*Surrey County Asylum, Brookwood* (*C*, 15; *S*, 14; *W*, 1).—*Males*: Henry Albert Collyer, Henry Field, James Gaynor, James Rendell, Thomas J. Sharp, Edward Trask, Alfred G. Twissell. *Females*: Gladys Anderson, Annie Baker, Emma Haynes, Edith Newell, Minnie Robinson, Mabel A. Thomas, Nellie Elizabeth Timms.

*Stafford County Asylum, Burntwood* (*C*, 13; *S*, 9; *W*, 0).—*Males*: Thomas Eel, Frank Roberts, Jacob Southgate. *Females*: Barbara Brown, Jane Ann Gair, Annie Stokes, Annie Turnham, Mary Ward, Annie Wells.

*Warwick County Asylum, Hatton* (*C*, 19; *S*, 17; *W*, 0).—*Females*: Sarah Ann Bullas, Sarah Ann Brookes, Maud Edge, Clara Flavell, Elizabeth Girling, Elizabeth Hydon, Ellen Hextall, Sarah Hextall, Rose Jones, Penelope Kemp, Ellen Kimber, Martha Lord, Edith Mitchell, Lizzie Sutton, Ellen Skelcher, Harriet Tarver, Annie Maria Wilkins.

*West Riding Asylum, Menston* (C, 12; S, 11; W, 0).—*Males*: John Kerry, Guido Milladew, Joseph Swift, Elijah Weeks. *Females*: Clara Bull, Henrietta Denning, Hannah Jeffrey, Ellen Kaye, Maude Ramsden, Annie Swift, Mary Isabel Wildsmith.

*West Riding Asylum, Wadsley* (C, 11; S, 8; W, 0).—*Males*: Charles Jas. Bacon, William H. Crowe, Henry E. Dodd. *Females*: Emily Beasley, Annie L. Hartley, Helena M. Robinson, Harriet Smith, Elizabeth Willis.

*West Riding Asylum, Wakefield* (C, 6; S, 4; W, 0).—*Males*: John D. Hutchinson, Peter Haddow, John Robinson. *Female*: Alice Cowell.

*Glamorgan County Asylum, Bridgend* (C, 36; S, 26; W, 0).—*Males*: William N. Cook, Fred. Duke, William Davies, John Earl, Bernard Evans, Thomas Green, John Jones, Hugh L. Jenkins, John W. Missenden, Arthur B. Pearson, Albert P. Potter, Francis Rawle, John Whittall, Thomas Westcott. *Females*: Gwenllian Evans, Elizabeth Evans, Annie Golledge, Emma A. Griffiths, Sarah J. John, Elizabeth Lewis, Annie M. Perkins, Sarah A. Poole, Elizabeth M. Potter, Mary J. Turner, Violet E. Warr, Margaret Williams.

*Joint Counties Asylum, Carmarthen* (C, 11; S, 9; W, 0).—*Males*: James Clarke, William Evans, Joshua Harris, William Lodwick, John Thomas. *Females*: Margaret A. Bowen, Margaret A. Jones, Emeline L. Nutman, Annie Thomas.

*City Asylum, Bristol* (C, 14; S, 13; W, 0).—*Males*: George H. Serles, Samuel G. Steele, Henry G. White, Thomas R. B. Walker. *Females*: Amelia R. Button, Annie E. Bradley, Elizabeth A. Freebury, Mary J. Howes, Mary McGuiness, Florence E. M. Pope, Eliza J. Thatcher, Emily L. K. Whale, Minnie Wilson.

*City of London Asylum, Stone* (C, 3; S, 3; W, 0).—*Males*: Benjamin Goodwin, James A. Penfold, Arthur L. Rogers.

*Borough Asylum, Hull* (C, 12; S, 10; W, 0).—*Males*: William Q. Boulton, John Beaulah, John Moody, William Pattison, John Robinson, John Whitehouse. *Females*: Louisa Bullough, Mary A. Bailey, Elizabeth M. Cranswick, Emmie Taylor.

*Borough Asylum, Derby* (C, 12; S, 12; W, 0).—*Males*: Henry Gilbert, Joseph Lewis, Norman Macdonald, Norman McIsaac, William McSparran. *Females*: Gertrude M. Alcock, Elizabeth Entwistle, Clara Foster, Lizzie Gaunt, Edith A. Sayers, Christina Mackenzie, Susan Wright.

*Borough Asylum, Nottingham* (C, 6; S, 6; W, 0).—*Males*: James Harrison, James Preston, Mark Reynard, Frederick Rose. *Females*: Mary Ann Cobley, Elizabeth Wood.

*Borough Asylum, Plymouth* (C, 6; S, 6; W, 0).—*Males*: Arthur Elford, Alfred Harpham, William James Rich. *Females*: Annie Stone, Annie Treleaven, Cordelia Wills.

*Holloway Sanatorium, Virginia Water* (C, 26; S, 24; W, 1).—*Males*: Louis J. Durrant, George Hobbs, Edward Hardy, Herbert H. Hartley, Harry G. Kyte, George North, Edward Northerm, John Souttar, George F. Grey-Smith, Thomas Wells. *Females*: Ethelwyn M. Amoore, Hannah L. A. Bray, Annie Baker, Matilda Francis, Louisa M. Fowle, Bertha Foster, Alice Frost, Alice H. L. Lake, Helen Pain, Amy E. K. Shanks, Emma Sheldon, Rosa M. Trigg, Charlotte M. Triphook, Amy Hay-Thomson.

*Coton Hill Asylum, Stafford* (C, 4; S, 2; W, 1).—*Males*: Charles Hayward, Edward Harry Reeder.

*The Retreat, York* (C, 4; S, 3; W, 0).—*Males*: John Wilson, John Frederick Simpson. *Female*: Mary Susannah Clark.

*Ashwood House Asylum, Kingswinford* (C, 2; S, 2, W, 0).—*Males*: Edwin Carpenter, William Moody.

*Hoxton House Asylum, London* (C, 9; S, 8; W, 0).—*Males*: William Henry Darville, James B. McDermott, William C. Sweetnam, Henry S. Watts. *Females*: Elizabeth Kitchener, Lilian Melross, Elizabeth Reith, Frances Ashe.

*Northumberland House Asylum, London* (C, 4; S, 4; W, 0).—*Females*: Frances L. Brown, Agnes Smith, Mary A. Taylor, Margaret M. Walsh.

*State Asylum, Broadmoor (C, 8; S, 5; W, 0).*—*Females*: Marion Hughes, Annie Schofield, Elizabeth Mears, Susannah Blackman, Florence L. Scott.

*The Royal Asylum, Montrose (C, 16; S, 13; W, 0).*—*Males*: William Brown, William Clark, David Dorward, John Keith, Charles McDonald, Alexander Milne, Marinus S. Ross, John Coutts Thomson. *Females*: Margaret Beattie, Catherine Cooper, Isabella Findlay, Mollison Law, Margaret Low.

*James Murray's Royal Asylum, Perth (C, 5; S, 5; W, 0).*—*Females*: Jane E. Goulbourn, Annie Low, Barbara Pirie, Nellie G. Smith, Annie M. Urquhart.

*Glasgow District Asylum, Kirklands (C, 3; S, 3; W, 0).*—*Male*: Alexander G. Mess. *Females*: Barbara Frood, Charlotte Glass.

*Fife District Asylum, Cupar (C, 6; S, 6; W, 0).*—*Males*: William Morton, William Swinton, Robert Splitt. *Females*: Kate J. Kirkcaldy, Maggie Ross, Jessie Urquhart.

*Perth District Asylum, Murthly (C, 6; S, 5; W, 0).*—*Males*: Peter Keay, David Player, James Peter, William Sinclair. *Female*: Jane Urquhart.

*Roxburgh District Asylum, Melrose (C, 4; S, 4; W, 0).*—*Males*: Robert Kerr, Robert Christie, William Sandieson. *Female*: Alice Simson.

*Stirling District Asylum, Larbert (C, 2; S, 2; W, 0).*—*Male*: David Shepherd. *Female*: Catherine McLeish.

*Smithson Asylum, Greenock (C, 3; S, 3; W, 0).*—*Males*: Alexander Biddie, Malcolm Nicolson, James Myron.

*District Asylum, Cork (C, 8; S, 5; W, 0).*—*Males*: Cornelius Murray, John Murphy. *Females*: Mary Ulanlon, Katie Lehane, Mary McCarthy.

*District Asylum, Clonmel (C, 14; S, 5; W, 0).*—*Males*: Terence B. Kelly, Michael Norris. *Females*: Mary Aylward, Bridget Lonergan, Kate Walsh.

*Richmond Asylum, Dublin (C, 25; S, 20; W, 0).*—*Males*: Patrick Baker, James Brennan, John Graham, Joseph McQuaid, Robert Shore, Charles Travers, Michael Staunton. *Females*: Kate Coleman, Jane E. Hughes, Bridget A. Hogan, Mary Hatton, Lizzie Keenan, Kate Murphy, Nora Maher, Rachel O'Brien, Kate Reddy, Esther Rourke, Anne Smyth, Esther Wilson, Mary Anne Wilson.

*District Asylum, Kilkenny (C, 6; S, 6; W, 0).*—*Males*: Michael Dowling, Matthew Holohan, Thomas Hennessy, senior, Thomas Hennessy, junior, John Menton, Martin Murray.

*District Asylum, Limerick (C, 11; S, 6; W, 0).*—*Males*: Andrew Creagh, Patrick Flynn, Denis Sullivan. *Females*: Mary A. McInerney, Ellen O'Brien, Margaret Wade.

*District Asylum, Londonderry (C, 6; S, 6; W, 0).*—*Males*: Daniel Moran, John McCool. *Females*: Isabella C. Caldwell, Sarah Doherty, Catherine Gallagher, Grace McFadden.

*District Asylum, Mullingar (C, 14; S, 14; W, 0).*—*Males*: Laurence Boyhan, Thomas Conroy, Thomas Colclough, Patrick Creevy, William Gilliam, William Hynes, George Owens. *Females*: Bridget Allen, Anne Beglin, Lizzie Callaghan, Bridget Fox, Teresa Harford, Maria McLoughlin, Ellie McLoughlin.

*District Asylum, Maryborough (C, 18; S, 18; W, 0).*—*Males*: Murtha Corcoran, Daniel Carroll, William Grant, Harry W. Inglis, Joseph Scully, John Scully, William Scully, Richard Lynch. *Females*: Lizzie McDonald, Mary A. Dunne, Charlotte Flynn, Theresa Grant, Kate Hiney, Mary A. Keating, Kate Long, Sarah Lynch, Anne Scully, Margaret Wallace.

*Hampstead House Asylum, Dublin (C, 1; S, 1; W, 0).*—*Male*: Samuel Boyd.

The following is a list of the questions which appeared on the paper:—

1. Mention and describe the kinds of joints, and give examples.
2. What is a varicose vein? How is it produced, and what dangers may it give rise to?
3. What is sleep? How do you explain it physiologically? How is it encouraged, and how disturbed?
4. In what kind of cases is homicidal tendency most frequently met with, and explain why?

5. Define an illusion, a delusion, and an hallucination: give examples of each. What are their respective values in mental disease?
6. What general instructions should be attended to in the feeding of the sick?
7. What are the chief points to be observed in the management and condition of a sick room?
8. What are the occurrences which call for immediate and special report on the part of Attendants and Nurses?
9. What dangers and risks are persons suffering from General Paralysis liable to?
10. How would you act in a case of choking, and in what class of cases is choking most likely to occur?

The next examination will be held on Monday, the 2nd day of November, 1896, and candidates are earnestly requested to send in their schedules, duly filled up, to the Registrar of the Association, not later than Monday, October 5th, 1896, as this is the last day upon which, under the rules, applications for examination can be received.

For further particulars respecting this and the other examinations of the Association apply to the Registrar, Dr. Spence, Burntwood Asylum, near Lichfield.

#### CERTIFICATE IN PSYCHOLOGICAL MEDICINE.

The next Examination for the Certificate in Psychological Medicine will be held on Thursday, July 16th, 1896, at 10 o'clock a.m., in London at Bethlem Hospital; in Edinburgh at the Royal Asylum, Morningside; in Glasgow at the Royal Asylum, Gartnavel; in Aberdeen at the Royal Asylum, Aberdeen; and in Dublin at the Richmond Asylum, Grangegorman. Applications for admission to the Examination should be sent not later than Thursday, July 2nd, 1896, to the Registrar, who will be happy to supply any further information on this subject.

#### GASKELL PRIZE.

The Examination for this prize will be held at Bethlem Hospital in July. All particulars can be obtained of the Registrar.

#### NOTICES OF MEETINGS.

##### NEXT MEETING OF THE ASSOCIATION.

The Annual Meeting will be held in the Rooms of the Association, 11, Chandos Street, Cavendish Square, on July 23rd and 24th, and there may possibly be an excursion on Saturday, the 25th.

The following subjects have been suggested:—Heredity in Mental Disease; Nomenclature of Mental Disease; Brain Changes in relation to Mental Symptoms; Treatment of any form of Mental Disease (selected by the contributor).

#### BRITISH MEDICAL ASSOCIATION.

The sixty-fourth Annual Meeting will be held at Carlisle, July 28th, 29th, 30th, and 31st, 1896.

##### *Section E.—Psychology.*

*President—JOHN ARCHIBALD CAMPBELL, M.D., F.R.S.E.*

The President will open the Section with an Address. Discussions have been arranged on the following subjects:—I. The Certification of Insanity; in its relation to the Medical Profession. II. The General Paralytic: His Practical Management and Treatment in Asylums. III. The use of Sedatives and Hypnotics in the Treatment of Insanity. Papers are invited on:—I. The

"Hospital" Treatment of the Insane in Asylums. II. The best methods of providing for the Chronic Incurable among the Pauper Insane. III. The Treatment of Insanity by means of Thyroid and other Animal Extracts. IV. The Transmission of accidentally-acquired forms of Insanity.

#### CONGRESS AT NANCY.

As previously announced the seventh Annual Congress of Alienists and Neurologists will be held at Nancy on 1st August, 1896.

#### CONGRESS AT MUNICH.

As previously announced, the third International Congress of Psychology will be held at Munich, 4th August, 1896.

#### CONGRESS AT GENEVA.

The fourth International Congress of Criminal Anthropology will be held at Geneva from the 24th to the 29th August next. The British members of the International Committee are Dr. Buchanan (Bengal Central Gaol), Dr. Clouston, Havelock Ellis, Francis Galton, Dr. Garson, Bevan Lewis, Dr. Maudsley, Douglas Morrison, and Dr. Nicolson. The organisers, for the first time in these Congresses, have been at some pains to secure British co-operation, and it is to be hoped that their efforts will be successful. Dr. Ladame (the President of the Committee), at Geneva, will be pleased to receive the names of those who propose to be present. The subscription, entitling to the preliminary reports and to the subsequent volume of Proceedings, is fixed at 20 francs. The papers and discussions at present on the programme include "The Positive Facts Demonstrating the Born Criminal" (introduced by Morselli), "Sexual Perversion from the Point of View of Criminality" (Garnier), "Sexual Inversion" (Magitot), "Professional Criminality" (Tarde), "Relation of Criminal Statistics to Professional Statistics" (Kurella), "The Results of Ancestral Alcoholism (Legrain), "Youthful Offenders" (Roussel), "Unrecognised Insanity and the Need for More Frequent Medical Intervention" (Garnier), "Criminal Suggestion" (Bérillon), "The Diagnosis of 'Moral Insanity'" (Benedikt), "The Treatment of Criminals" (Lombroso and Brockway), "The Classification of Criminals" (Garofalo), "The Teaching of Criminal Anthropology" (Lacassagne), "The Brain Cortex in Criminals and Epileptics" (Roncoroni), and many other papers of interest and importance by Motet, Sighéle, Galton, Näcke, Ferri, Mendel, Ballet, Drill, Manouvrier, Aubry, Van Hamel, etc.

#### APPOINTMENTS.

**RICHARD BRAYN**, Esq., L.R.C.P. Lond., M.R.C.S. Eng., L.S.A. Assoc., King's Coll., Lond., has been appointed Medical Superintendent to Broadmoor Criminal Lunatic Asylum, in place of Dr. Nicolson, resigned.

**MR. JOHN ALFRED EWAN**, M.A., M.D., C.M. Edin. (Senior Assistant Medical Officer Dorset County Asylum), has been appointed Medical Superintendent to the Kesteven and Grantham District Asylum.

**MR. HAROLD ANDREW KIDD**, M.R.C.S. Eng., L.R.C.P. Lond., Senior Assistant Medical Officer Cane Hill Asylum, has been appointed Medical Superintendent to West Sussex Asylum.

**CHARLES MACPHERSON**, M.D., L.R.C.S.E., D.P.H., appointed Deputy Commissioner in Lunacy for Scotland, vice Dr. Lawson, deceased.

**MR. C. S. MORRISON**, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Superintendent of the County and City Asylum, Hereford, vice T. A. Chapman, retired.

**DR. SAVAGE** has been appointed Physician for Mental Diseases to Guy's Hospital.

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**Sporadic Cretinism.**—As regards Sporadic Cretinism, we cannot do better than refer the reader to an original article which appeared in *The Lancet*, with Photographs, by W. W. O——, M.D. Oxon., M.R.C.P. London, November 4th, 1893, p. 1113.

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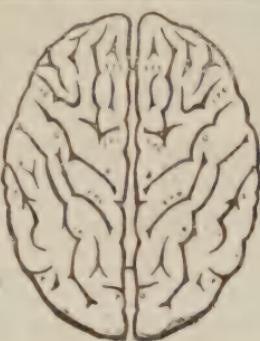
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*Gift of  
Dr. Frederick Howard Wines.*

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### Acknowledgments.

### Exchange Journals.

#### **British.**

Asclepiad ; Brain ; British Medical Journal ; Dublin Medical Journal ; Edinburgh Medical Journal ; Glasgow Medical Journal ; Journal of the Anthropological Institute ; Hospital ; Lancet ; Medical Magazine ; Mind ; Practitioner ; Proceedings of the Society for Psychical Research ; Australasian Medical Gazette.

#### **American.**

Alienist and Neurologist ; Journal of Insanity ; Journal of Medical Sciences ; Medical and Surgical Bulletin ; Index Medicus ; Journal of Comparative Neurology ; Journal of Mental and Nervous Diseases ; Journal of Psychology ; Medicine ; Medico-Legal Journal ; Medical Standard ; Monthly Journal of Medicine and Surgery ; Montreal Medical Journal ; Psychological Review ; Quarterly Journal of Inebriety ; Reports of the Smithsonian Institute ; States Hospitals Bulleten, N.Y. ; Universal Medical Journal.

#### **French.**

Annales Mèdico Psychologiques ; Annales des Sciences Psychiques ; Archives Clinicales de Bordeaux ; Archives de Neurologie ; Bulletin de Société Psychologie Physiologique ; Gazette des Hôpitaux ; Journal de Medicine de Bordeaux ; Nouvelle Iconographie de la Salpêtrière ; Poly-biblion ; Progress Medicale ; Revue de Hypnotisme ; Revue Neurologique ; Revue Philosophique ; Revue Scientifique ; Revue des Sciences Medicales ; Revue Therapeutique ; L'Année Psychologique.

#### **Belgian.**

Bulletin de Société de Médecine Mentale de Belgique.

#### **German.**

Allgemeine Zeitschrift für Psychiatrie ; Archiv für Psychiatrie und Nervenkrankheiten ; Centralblatt für Anthropologie ; Centralblatt für Nervenheilkunde und Psychiatrie ; Der Irrenfreund ; Jahrbücher für Psychologie ; Neurologisches Centralblatt ; Zeitschrift für Psychologie.

#### **Dutch.**

Nederlandische Tijdschrift.

#### **Italian.**

Annali di Freniatrie ; Annali di Nevrolgia ; Archivio Italiano per le Malattie Nervose e per le Alienazioni Mentali ; Il Manicomio ; Rivista di Pathologia Mentale e Nervose.

#### **Russian.**

Archiv Psychiatrii, Nevrologii, i Soudebnoi Psychopatologuii ; Obozrenie Psychiatrii, Nevrologii, i Experimentalnoi Psychologuii ; Voprosi Nervno-psychitscheckoi Medizini ; Voprosi philosophii i psychologuii.

## Books and Pamphlets Received.

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Dreamy Mental States, *Crichton-Browne*; Proceedings at the Annual Meeting of the American Medico-Psychological Association; Cosmic Ethics, *W. Cave Thomas*; La Femine Criminelle et la Prostituée, *Lombroso et Ferrero*; La Psychologie des Sentiments, *Ribot*; Des Variétés Cliniques de la Folie en France et en Allemagne, *Roubinovitch*; Nomenclature of Diseases, New Edition.

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The Editors also desire to acknowledge with thanks the receipt of the following Asylum Reports, but there are still many for last year which have not yet come to hand:—Gloucester County Asylums (Wotton and Barnwood), 1896; Glamorgan County Asylum, Bridgend, 1895; Enniscorthy Asylum, Co. Wexford, 1895; Joint Counties Asylum, Carmarthen, 1895; State Hospitals of New Jersey, 1895; Roxburgh, Berwick, and Selkirk, 1896; Pennsylvania Hospital, 1896; Sheppard Asylum, Baltimore, 1896; Joint Counties Asylum, Abergavenny, 1896.

Members are reminded that prompt and full information regarding matters of interest to the Association will be gladly received.

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Original Papers, Correspondence, &c., to be sent direct to Dr. URQUHART, James Murray's Royal Asylum, Perth.

English books for review, pamphlets, exchange journals, &c., to be sent by book-post to the care of the publishers of the Journal, Messrs. J. and A. Churchill, 7, Great Marlborough Street, London, W.

Authors of Original Papers receive 25 reprints of their articles. Should they wish for additional Reprints they can have them on application to the Printers of the Journal, South Counties Press Limited, Lewes, at a fixed charge.

The copies of *The Journal of Mental Science* are regularly sent by Book-post to the Ordinary and Honorary Members of the Association. Enquiries respecting the Association to be made to the Hon. General Secretary, Dr. R. PERCY SMITH, 11, Chandos Street, Cavendish Square, W.



JOURNAL OF MENTAL SCIENCE



Samuel Titch, M.D.

First President and Chief Organiser of the Royal Anthropological Society



DIRECTIONS TO BINDER.

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# THE JOURNAL OF MENTAL SCIENCE.

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## PART I.—ORIGINAL ARTICLES.

*Presidential Address delivered at the Fifty-fifth Annual Meeting of the Medico-Psychological Association, held in London, 23rd and 24th July, 1896. By W. JULIUS MICKLE, M.D., F.R.C.P. (London), President.*

### MENTAL BESETMENTS.

Mental besetments or obsessions will be considered in their general aspects, position, and relations. It is not intended to make elaborate clinical description of their various forms. To systemise, and to make the scope of what follows clear at a glance, the subject will be divided under several heads:—

1. A slight outline of besetments of mind or obsessions will be drawn.
2. Their psychological and clinical position will be briefly examined in the division of them by the writer.
3. Next their general characters will be noticed, and
4. Fourthly, the necessity of extricating them, by differential distinction, from conditions with which they have been confounded.
5. Together we take (a) their gradual development in some cases into special mental disturbance, and even into actual insanity; and (b) their desperately dangerous and injurious type in some examples, and the graded scale between these and the trivial.
6. Their relation to phenomena in primitive man, and in savages, and to conditions in ordinary forms of paranoia.
7. Their nosological position, alliances, and congeners.
8. Cases illustrating several of the foregoing departments of the study of besetment.
9. The clinical aspects of obsessions in their several degrees. And instead of giving a long clinical account of

the many forms of obsession I will end by reproducing a description—written, apparently, in the mental life-blood of the sufferer, a master of English—the earliest full description, and the best one that has yet appeared of certain forms of obsession.

Space fails for discussion and complete delineation of all mental besettings, or even of those not within the limits of the one reproduced.

## I.

### A BRIEF OUTLINE OF OBSESSIONS OR BESETMENTS.

*Mental obsession, or the state in which the mind is affected by some compulsive thought, of a kind, or irrational and often progressive fear; alone, or conjoined with an impulse which is, or tends to become, irresistible. Also an abulic form.*

In the more severe forms the fundamental condition is anxious pathological obsession, which oppresses and tortures its victims the more they struggle against it. He suffers from morbid besetment who is obliged to count all the gas-jets, or all the trees, on his way, and who, making a mistake or becoming confused and forgetful in the reckoning, falls into a state of anguish, which is only relieved by retracing his steps and recommencing the enumeration; or he who is besieged by an evil, or absurd, or foul word or phrase ever rising to the lips, and is thrown into anxious tumult by the struggle to avoid expression of it, but fails to recover momentary ease except at the price of uttering it, if only in a whisper. And much the same applies to those who are apt to be troubled, and their consciousness occupied, with an unceasing train of questionings or metaphysical problems, *e.g.*, on God—the world—the future—perhaps until they doubt their own existence—or with a series of questions, like an endless screw, on some trivial, trumpery, or absurd irrelevant topic; or who cannot approach a window without the impulse to precipitate themselves; or who cannot be near certain classes of persons, or near brittle objects, without an impulse to strike the former or break the latter; or who if walking the pavement must pick their steps under compulsion of the conception of a precise and necessary arrangement; or who must touch definite objects in series in a particular manner as they go; or who, should they not first recall some especial memory or word or phrase, or count up

to so many, cannot do this or that feasible act they wish—possibly even when desiring coitus are impotent until the obsession is satisfied by the performance of the irrelevant and absurd proceeding, namely, of making certain counts or other utterances or movements. With this is more or less of a painful, often anguished, state of feeling, with sense and idea of vague or definite evil to ensue—of mental perturbation to the self—if the act be not done, also of necessity to do the act, and painful inquiry as to the wherefore and nature of the morbid state.

Fundamentally and essentially in part the same, the abulic besetments differ in type from the others, inasmuch as they show impotency of will, manifested in mental powerlessness to do some simple ordinary act.

Some obsessed persons get sudden anguish about imaginary impending stroke of disease or suicide or death.

In their more simple forms obsessions are merely slight and elementary mental conditions of abnormal type, which it is scarcely correct to call mental disorder or derangement, and with some of which it would be absurd to deal, practically, as an insanity in the legal sense. But this is true only of the more simple. At each step, as they pass to the more severe phases, they increase in importance, become progressively detrimental, step by step more engrossing, entralling, and subversive of mental soundness; and at each enhancement of degree becoming of greater forensic value, more and more a mental subjugation and slavery of the affected person, destroying his usefulness, controlling his life, and making him, if dangerous, ever increasingly dangerous to himself or to those around him. Fortunately it is not always thus: the condition may be recovered from; it may undergo improvement; it may remain at a standstill, or practically make no advance.

Obsessions are among the stigmata of the insane diathesis in many cases; they are among the stigmata of hereditary mental degeneracy. In an elaborate and advanced form they pass into a variety of insanity and rule the subject's life. They have close relationships to neurasthenia, paranoia, hypochondria, hysteria, and to some cases clinically, in part, of melancholic type. Nor are they without noticeable relations to epilepsy, and, perhaps, to chorea. But, later on, we shall see that, nosologically, they must be kept distinct from all these. Like neurasthenia, obsessions may be acquired. But a host of neurasthenias are essentially of

hereditary origin, and if obsessions co-exist the neurasthenia and they are concomitant evidence of the hereditary morbid weakness or defect. This last is the natural fertile soil for neurasthenia, obsessions, paranoia, hypochondria, hysteria, melancholic forms, and many other morbid psychoses of the great group marked by hereditary mental degeneracy, which are inextricably bound up together as fruits of the same soil. Thus there may be :—1. Neurasthenia. 2. Elementary disorders of mental action. 3. Fully-developed degenerative psychoses, such as those attended by hypochondriacal or by persecutory delusion.

It was under the name of "monomanie raisonnante" that Esquirol published his case of insanity of morbid doubt and fear of contact with certain objects. Under the same heading he included cases without such symptoms, namely, two of his own; and four exemplars of so-called moral insanity, published by Prichard. And, nearly 30 years later, it was as "monomanie avec conscience" that Baillarger brought forward the instance of one with fixed painful ideas and terrors as to writing material, especially pencils, who could only attain calmness when watched by two persons, who also lost herself in *ifs* and *perhapses*, and was practically quite insane.

Under the title of *délire emotif* (taken to be a neurosis of the ganglionic nervous system) Morel set forth cases marked by exaggeration of sensibility, impressionability, and emotional facility. Hence, in different cases, over-impressionability, irrepressible childish tears and sobs, and a terrible fuss about trifles, sometimes followed by spasm or convulsion; horror of heights, fear of falling in steep places, fear of contact of objects, perhaps suddenly appearing and ceasing, or tending to a panphobia; causeless fear of rabies, hypochondriacal fixed idea, hysterical hyperesthesia, constant preoccupation as to the nature and causes of the "fixed ideas." In some examples the condition began after a physical or mental shock, with sensation as of a blow in stomach or chest, followed by fear of using some common simple things, as knife or key, and inability to use them. Rarely, hallucinations or tendency to homicide or suicide followed. There was inability to do rather than impulse to do, *e.g.*, certain objects could not be touched, certain articles could not be used, and urgent attempts to touch or use them would sometimes bring on spasm, convulsion, or syncope.

Prominent are the disorders of digestion and circulation, the facile creation of morbid emotion, the instantaneous implantation of certain fixed ideas producing baseless fear or impulse, so to speak, irresistible; ridiculous terrors which sometimes become panphobic; the affective and moral perversion.

Under one title or another, the older literature contains examples of one or other of the forms of besetment. Thus, to take the morbid fear engendered by the perception and idea of spacious rooms, churches, temples, wide streets, and public squares; long before Westphal in 1870 called attention to it, examples had been described by Brück, who termed it "Schwindel-angst." Sauvages had mentioned cases of it under the head of *vertigo hysterica*. And Petrus Forestus\* gave an example, observed in 1572, under the preamble "de vertigine cum cerebri imbecillitate."

Now this is only one of a group essentially of the same intimate nature, the morbid dread and idea engendered by particular kinds of places or aspects, *e.g.*, the similar dread and tumult aroused by being in close quarters or narrow spaces, that produced by seeing crowded throngs of people or crowds in movement; anguished dread from being on heights, from seeing any precipice or even slight depths below; or dread engendered by being in the open without shelter overhead, and in Brück's case assuaged by putting up an umbrella. The fear may be a fear of losing footing and of falling, or of losing consciousness, or of becoming vertiginous. With the sense of personal insecurity is an overpowering leading conception, *e.g.*, of inability to proceed, or to stand, or to escape, or of being gazed at and remarked upon.

These various morbid distresses, like the torment of the self-questioning and other obsessions, are congeners; are different manifestations of a common pathologic state.

J. Falret (*fils*) described the true basis of the condition as a general disposition to return unceasingly to the same ideas or acts, to experience the emotional need to repeat the same words, or scruple to do the same acts, without ever succeeding in satisfying or convincing oneself; a perpetual state of internal hesitation; an inability to arrest this incessant labour of thought which exercises itself on itself without reaching any definite result. Hence Falret (*père*) termed it

\* Frankfort edition, 1634, p. 372. Dr. Emil Höring, who first cited this, refers to an edition of "1614."

“malady of doubt.” For some of these insane are tormented by religious scruples, and incessantly reproach themselves for the ideas which spontaneously arise, or for the most insignificant of the ordinary acts of life ; others are occupied in chasing certain ideas, or in trying to hold those which incessantly tend to escape from their recollection ; others, and this is the most frequent he said, are in perpetual fear of touching external objects with their hands or any part of body or even dress, dreading that these objects are defiling or injurious to them, or having some abstract scruple as to the possible effect. These fears react painfully on the details of their lives ; they cannot live the common life. Thus they may be prodigiously long in dressing, in getting seated at table, may dread to put food to mouth, or to walk lest they soil the ground with their feet, may avoid others so as not to run the risk of shaking hands or of grazing them with their clothing, and shun the touching of all, or of certain, external objects. Having involuntarily touched something or someone with hand or dress they must wash the hand or put off the defiled article of clothing. From this, again, arise new doubts, new perplexities, and new tardiness in the accomplishment of all the acts of life. They speak constantly to themselves on the subject of their mental state, and, not content with this, experience the need of reporting these anxieties to others. Most of those affected reach a complete mental disorder. Thus far Falret ; and we find in his cases the mysophobic fear of being touched, defiled, or injuriously affected in some way by contact ; or else a fear of touching, defiling, or injuriously affecting other persons or things.

I would urge the absolute abolition of the designation “*délire du toucher*.” By it was named that which is not a *délire du toucher* ; but on the contrary is usually a morbid anxious dread of, or of a quality of, some environmental thing or condition ; occasionally also, or solely, relating to direct contamination by the self ; whether or not with this dread may be clearly defined obvious morbid doubt, hesitancy, indecision. The conceptual and emotional state is that of fear of contact with this or that kind of object, or with many, or of the effect of the *self* upon *others* or on things ; and relates to defilement, foulness, contamination, disease, poison, virus, vague or subtle ill-effect, therefrom ; or some superstitious fatalistic notion arises in that connection, which im-

presses itself insistently. And very often with this is some form of the questioning torment.

But, in spite of precaution, contact is sure to come, and to bring to the sufferer's imagination all the evils so abhorred. Hence an ever-renewed urgent pressure, impulsive, and as it were automatic, to wash the hands, or it may be face, or articles of clothing—and to wash them over and over again with morbid persistency. And hence some of the prolonged wearisome repetitions, doings and undoings, thousand plans and stratagems, attempts and imagined failures, renewed strivings and insistive repetitions; so that torturing hours are consumed in the process of dressing or undressing, of paying attention to the calls of nature, or of doing some other simple everyday act of life—but now done with the wearisome magic ceremonial of morbid precaution, hesitation, and doubting fluttering vacillation.

Of these we may take mysophobia as the type, as one of the earliest and most frequent forms observed. But the tyranny of the name has sometimes led to such cases being misunderstood as mere fear of dirt; dirt, as simple dirt, being not amiss to many of the subjects of morbid fear of contamination or defilement.

But more simple, more elementary, more fundamental than this, is an utterly different condition, and one with much more right to be designated *délire du toucher* than has that to which this name has been applied (except when otherwise applied under misapprehension). It is a condition which I term the *besetment* or *obsession to touch*. It has been almost neglected, and is only incidentally mentioned as an element in a few particular examples of obsession. Nevertheless, I believe it to be obsession in one of its purest and most simple forms; yet capable of undergoing development through all the grades into definite insanity. Here and now I desire to give it its due place, and afterwards to support this claim, not merely by reference to examples within my knowledge, but also by citation from the romancer already referred to.

Then let us for ever cast away the name "*délire du toucher*;" misleading, erroneous, pernicious.

Of like position with the *besetment* or *obsession to touch* or *to touch in a particular way*, is that of ordering and arranging the steps, or touching or kicking with the feet, or making other especial movement, tap, or magical ceremony with them. The simplest is the felt need to walk on the pavement, floor, or footway, with paces so many to the piece of

wood or stone, to avoid stepping on the lines of junction of the component parts of the footway ; or, contrariwise, to be anxiously careful to step on them, or to miss none, or to begin or end with left foot or with right.

The hand and foot performances just described ; and the counting impulse ; and the impulsive need to repeat the same word or phrase ; are perhaps the four simplest forms ; and the usual underlying psychic groundwork is that of anxious emotional hesitation, indecision and faltering doubt ; paroxysmally recurrent.

## II.

### THE PSYCHOLOGICAL AND CLINICAL POSITION OF MENTAL BESETMENT OR OBSESSION.

A. What is the position of mental besetment in relation to the psychological division into—*thought, feeling, will*, which we may use here whether we like it or no?

It has been held that neurasthenic obsessions are lesions of *will* from disorder of central reaction (differently from lesions of will in ordinary insanity held, by the same, to arise from disorder of centripetal excitation). Also, that they are divisible into impulses and abulias according as the power of “ voluntary ” arrest (inhibition) is affected, or, on the contrary, the power of “ voluntary ” action—there being in the former case insufficient inhibition ; in the latter, deficiency of motive energy.

In obsession there seems to be a morbid activity of part of the memory apparatus (if we may so speak). Roused on a sudden with morbid intensity the memory or “ idea ” forces its way, and in its rush the activity of the motor mental apparatus is involved, and is apt to be compelled into the service of the compulsive idea. Capable of being curbed at first and in the minor phases or attacks, the impulse to act may become irresistible in the graver forms or at the height of the besetment. And, as a rule, therewith is a burst of hurried fear, of dread alarm, or of horror and affright. Indeed, in some cases the erratically aroused and morbidly intense memorial image is of emotional type mainly : *the dread or fright takes the leading part and control.*

Yet it has been held that (straining and limiting the use of the word) “ ideas ” are the essence of the mental state ; or, as one might prefer to say, that the condition is essentially one of disorder of thought-elements, in con-

sciousness. In this view, I take it, the sudden emergence and inconsistency of the imperative conceptions would be the great *moment* ; and any emotional accompaniment would be held to be secondary, and, at least, for the most part, due, as alleged, to the conflict between the besetting thought and “the will,” the latter in anxious revolt striving against the besetment, and the strife being mentally painful or torturing ; or, if the obsession is an abulic one, the agonising distress flowing from the helpless feeling of powerlessness to do some trifling simple act. The apparently sudden implantation of the intruding imperative conception is often surprising to the obsessed himself. So is the equally facile emotional stroke.

But I think that here the proper “organising idea” is that, broadly viewed, besetments invariably tend to, and usually are, a blending of anomalies of all three : *thought* ; *feeling* ; “*will*.” The tendency is always present ; the blending produces the usual and composite state.

Truly, there are cases in which imperative insistent dominating *conceptions* of recurring labile remittent or intermittent fixity, hold first place, lead to no important act, are not very noticeably accompanied by emotional disturbance ; and truly there are others in which disorder of emotion and of action is secondary to the erratic play of the compulsive thoughts.

And there are others in which an *impulse to act* or an irresistible one seems to be the chief and leading symptom ; the act, like a reflex one, sudden, the idea of it scarcely conscious ere accomplished in the corresponding act.

Yet, in still other instances *morbid fear*, terror or horror is apparently the predominating mental condition. But even here there is a conceptional element which may be a co-equal, and, possibly, a fundamental one. And in some cases the morbid fears aroused by particular objects or sensorial impressions spring forth on the mere memory of these.

Consequently, while maintaining that disorders of thought, feeling, and “will” are usually concomitant and blent in obsession, and that the tendency to such blending always exists, one must also say that there are cases in which

(1) Disorder of *thought* seems to be the chief fact, and may be taken as so ; yet in others

(2) Disorder of *feeling* seems to be the chief fact, and may be taken as so ; and in others

(3) Disorder of “*will*” seems to be the chief fact.

For this reason, and for convenience, I have been accustomed to speak of the main varieties of obsession as grouped under "The Three D's," namely, the besetting Doubts, the besetting Dreads, the besetting impulse to Deeds. Or, respectively, the besetments of Doubt, Dread, and Deed, according as Doubt, or Dread, or Deed (Act) is, respectively, the apparently leading and title rôle in the morbid drama, but in each case supported by some form or degree of the other twain factors; certainly at least being so in the later, fuller, stronger manifestations of the malady.

And here I use the words "Doubt," "Dread," and "Deed" in a widely comprehensive meaning of each:—

*The Doubts* as including, not merely morbid dubiety in the stricter sense, but also such conditions as the presence of insistent words or fixed propositions, involuntary uncontrollable questionings, metaphysical refinings, mental whimsical raking-up, rummaging, searching, prying or rumination; anxious inquiries, intellectual impulses, morbid notions of defilement, or of contact, or of touching—all these being of special type and character:—

*The Dreads* as including the "phobias" proper, or at least their most striking feature, and varying from slight seizure of mental pain, vague *malaise*, a perturbed, restless, straining, uneasy expectant state of mind to one of paroxysmal, profound dejection or dread or nameless horror; and all these of special type and character. Nevertheless, in some cases, no dread is distinctly felt, at least in the early phases, but an agitated fluttering feeling, a wavering vacillation, "variable as the shade by the light trembling aspen made." This may precede and accompany precordial anxiety or ill-ease, which becomes urgent if mental shocks affect, or chagrins or worrying threats annoy, or dangers confront, the unhappy sufferer:—

*The Deeds* as varying, one might almost say, from the ideas of acts to do, or merely nascent tendencies to action, up to those which force their way, must be stoutly resisted, are resisted, and, after a struggle, may be successfully restrained "by will"; and through these, up to those which are resistless and accomplished with a torrent outburst of quasi-convulsive force, incapable of being restrained by the relatively weakened "voluntary" energy.

The morbid condition often is manifest in the inability to do some simple ordinary act; powerlessness and invincible

repugnance to touch certain objects, to use some simple article; or in dread of approaching or opening a window or of mounting the least height. These may follow physical or mental shock, and may be ushered in by epigastric, precordial, or cardial, strange and sudden sensations. Abulia, or inability to do, is important, but less so than uncontrollable doing, in obsession. The attempt to do the obsession-forbidden act may produce physical tumult and disaster; even convulsion or syncope.

Therefore in the motor and voluntary sphere, and in contrast with the impulsive acts, we may admit, also, such as were long ago reported by Morel, and recently named the abulic obsessions by Régis; those impotences due to recurring deprivation of will-power, a sort of psychic helplessness and incapacity to voluntarily fix thought or to act; or short, recurring, mental paralysis of action.

Of this kind are cases such as one in which the patient could walk on a floor divided into squares, could go up and downstairs, but from fear of a fall could not walk on a smooth floor, falling in the attempt; yet was able to walk on that or any floor by stepping over a cross-piece attached to the lower end of a walking-stick (Sovetow); or cases of paroxysmal distressing besetment of inability to rise up, to climb a stairway, to dress oneself, to speak, or write, or fix thought, or enter a door, or seat oneself at table.

Allied to this is functional inability to walk, although the limbs can be moved freely and strongly; or delusion that limbs are of some brittle substance, leading the affected not to move them; or dread of tabes producing tabetiform symptoms.

But while the above is a correct and convenient classification, neither disorder of thought, nor of feeling, nor of "action," alone, is, *practically*, ever the sole and pure mental element of an obsessive besetment.

The "doubts" are in some cases so comparatively free from emotional accompaniment as to be spoken of as forming a "non-emotional" variety of imperative ideas. But certainly when advanced in development they always have emotional accompaniment. And I believe that at least in many, and probably in all, cases termed non-emotional there is, even at an early stage, some, perhaps slight, accompanying disorder of feeling, some of that disturbance of the fundamental feeling of existence—or

“nervousness”—which I have already mentioned as an agitated, fluttering, uneasy feeling of wavering vacillation; one which often co-exists with, or with a tendency to, precordial anxiety and painful sinking, to sombre tone of feeling, to gusts of ill-ease and sadness—or the tremulous tumult of vague, dimly-felt foreseeings and mental fore-shadowings.

Similarly, the doubts may appear to be distinct and separate from the “acts,” but in all cases of the former I believe there is action of some kind, or a tendency thereto, action in a nascent form at least. And in many cases there are distinct impulsive acts, and these, in some examples, are the phenomena of supreme importance from the forensic aspect.

That the imperative thought may be prior to and more prominent than the accompanying imperative emotional feeling is compatible with the nosological position we assign to the cases presenting it. For in paranoia, some forms of which are closely allied with and may follow obsession, intellectual disorder precedes the most striking perversion of emotion shown—although some moderate or slight disorder of emotional feeling precedes in most or in all—and the eventual clinically pronounced emotional state, in cases pre-eminently of insistive dominant delusions, is secondary and reactive to the delusions and hallucinations.

Moreover, the suggestion of the act to the mind by and in the compulsive idea—whether this last be successfully resisted or not—implies and requires the arousing of motor ideas involved in the act as the immediate antecedent. And if we admit a primary division into obsessions approximately mental only, and those with overt impulses to act as well, the full development is by imperative compulsive thought, anxious emotion or fear, and the culmination in impulsive uncontrollable act.

The “dreads,” therefore, are sometimes quite secondary in their pronounced form. Seemingly, in some degree they are practically invariable (or nearly so) in the imperative or compulsive conceptions; and they lead to motor expression of feeling and to involuntary action, which may vary from the merely nascent or slight to the active or even violent and destructive. Moreover, in the dreads there is indissolubly blent a large share of intellectual elements; a complex state in which thoughts and feelings are unwoven. The word

“idea” I do not use just here, for in this relation it is an ambiguous term.

In mental besetments, the limited power of self-control *quoad* attention, has a resemblance to that of the hypnotic state, and the leading part taken by attention in those mental phenomena, and the manifestation, in them, of “tonic cramp” of attention, have received notice; as also the relation of the mental attitudes to physical reactions. It may seem as if the channel between ideation and (sympathetic?) nerve became so free and direct that the usual sequence is changed to one of “fixed idea,” heartquake, and conscious fear. “At all events this last is swiftly overtaken by the automatic organic attitude of fear; and this quick reflex from the idea undoubtedly increases the fear; the man is frightened by his own trembling; he is a coward upon instinct. This amounts to mental suggestion from the physical field” (Cowles). Obsessions may have sensational elements: strange and controlless sensations about head, extremities, chest, genitals, abdomen.

Similarly of the *acts*. The more they are thoroughly investigated, the more of intellectual and emotional accompaniments do we find; the attention of observer and of subject is so inclined to fix on the strange incongruous or dramatically dangerous or fatal acts that the relatively little-conspicuous conceptional and emotional disturbances may fail to arouse notice.

Nor do the acts stand alone, otherwise. The strangest “bodily” feelings and changes precede and accompany them—head-pain, strange sensations seeming to mount brain-wards like auræ; feelings of heat or of constriction about abdomen, chest, throat, or head; anorexia, griping pain, burning at the epigastrium, sudden intense sensations of heat; pallor, sweats, flushings, thumping heart and bounding arteries.

The bad effect of overwork, mental or physical, and of any strain, exhaustion, inanition, any depleting drain on the nervous system, in promoting obsession, needs only to be mentioned; as well as the current error, thereanent, which leads to urge upon the obsessed what, to them, are modes of physical over-work and irritating kinds of so-called distraction of the thoughts.

## III.

## GENERAL CHARACTERS OF MENTAL OBSESSIONS IN THEIR PURE AND PRIMITIVE FORM.

As to their *general characters*; obsessions often have neurasthenic physical accompaniments. Their occurrence is usually based in hereditary mental degeneracy. They are fluctuatingly remittent, or paroxysmal; and liability to them is of indefinite total duration. As to their psychic characteristics; at first lucidity and consciousness of the morbid nature of the mental state are retained; anxiety presses, or distress; attention dwells on the malady; dejection and *tedium vitae* often accompany; and, usually at least, there is tendency to paroxysmal conscious impulsive act, which often becomes irresistible. Hallucinations are absent in the uncomplicated cases. Obsessions often are related to a particular set of conditions both as regards occurrence and recurrence. Similar surroundings or incidents recall and suggest the previous obsession. Some actual untoward incident, or natural anxiety, or fear, may appear to be the starting-point.

Falret characterised obsessions as accompanied by the sufferer's consciousness that the condition is a morbid one; as being usually hereditary; as remittent, periodical, or intermittent; as not remaining isolated mentally in the form of monomania, but extending to a wider sphere of the intellectual and emotional life; and always accompanied by anguish and anxiety, by an internal struggle, hesitation in thought and in act, and by physical symptoms more or less pronounced of an emotional (nervous and mental) nature; but not by hallucinations. Furthermore, that the same psychic characters of the symptoms are retained throughout the whole future life of the subject of them, notwithstanding frequent and often prolonged alternation of exacerbation and remission, and they do not pass into other forms of mental disease or insanity, nor ever terminate in dementia; and that, rarely, they may be associated with persecutory delirium or that of anxious melancholia at a later period of the disorder, but even then preserve their primitive characteristics.

One cannot fully accept some of these asserted characteristic features. Nor that there is always the need to assuage the doubt by seeking the testimony of others.

The clinical states in besetment are not always the same in degree and intensity; they vary much in these respects and in correspondence with a number of circumstances or conditions. They may be mild or severe; in occurrence, comparatively frequent or seldom; short in duration, or long drawn out; severely paroxysmal and acute in attack, or more chronically and deliberately falling and rising with moderate fluctuation and swell.

#### IV.

##### BESETMENTS OR OBSESSIONS MUST BE DISTINGUISHED FROM SEVERAL OTHER CONDITIONS.

The sudden irruption of the elements of obsession from below the threshold of consciousness may remind one of the epileptic *insultus*. Yet the condition is not an epilepsy proper: it is not a masked epilepsy. There are not dreamy states of consciousness, or anything similar thereto, as a *primary* condition; although mental confusion may come, and even to a chaotic degree, as a secondary affair in some few cases and in consequence of the irresistible and tormenting urgency with which the sufferer must follow the train of his thoughts, which change with ever-increasing rapidity until they are obscured in a confused mental eddy or whirlwind. But these secondary states occurring in some examples of obsession are fundamentally different from the *primary* mental "absence," momentary obscuration, imperception, or dreamy mental states and reminiscences, of some cases of epilepsy. Obsessions *may* immediately precede the convulsions of epilepsy, as *auræ*, or may occur in epileptics during the quasi-lucid intervals between convulsive bouts when the mind is not *immediately* affected by the epileptic seizures; but this is another matter altogether. Here, also, usually at least, are conditions of degeneracy as well as of mental reduction.

We may compare for a moment the general characters of obsession with impulse, and the general characters of epileptic uncontrollable impulse.

In the *obsessed* case the general characters are:—

Retention of full consciousness, or of fairly full. Usually clear recollection of the attack.

Concomitant anxiety and anguish.

Insistent dwelling by the sufferers on their condition.

*Tedium vitae.*

Physical signs of cerebral neurasthenia, frequently.

In the *epileptic* case the general characters are:—

Suddenness of onset.

Unconsciousness, or dreamy state, or great mental obscuraction, at the time of impulse.

More or less complete loss of recollection of attack, afterwards.

Often precise similarity of the details of several impulsive paroxysmal seizures and acts.

Therefore, the great distinctions between the two are that in *obsession with impulse* there are, more or less full retention of consciousness during the impulsive seizure, followed by clear recollection of the attack; anxiety or anguish; engrossed dwelling on the state; neurasthenic accompaniments.

Whereas in the *epileptic impulse* there are the more periodical paroxysmal occurrence; sudden onset; degrees of unconsciousness followed by complete or incomplete amnesia of impulse and act.

Ordinary or somewhat unusual hysteria must not be mistaken for obsession.

Nor must hypochondria with a dominant set of morbid ideas of ordinary type, be confounded with the compulsive besetting ideas and feelings.

Mere strains of reminiscence, such as the temporarily haunting bars of a popular melody, must not be taken as pathologically in line with mental besetment, although useful for purposes of simile.

Idiosyncrasies are not obsessions. Thus, he was idiosyncratic but not obsessed who always broke out in a severe red rash of special type whenever he partook of gooseberries, and only then, and who, drinking spurious champagne when a guest at dinner, to his astonishment found this rash make appearance with all its usual concomitant symptoms.\* Yet the contact of certain harmless objects; the sight of the same or of others; the hearing of particular commonplace sounds; the odour or taste of some ordinary things; may give rise to conscious paroxysmal distressing anxious

\* Mr. Geo. Pollock's Introductory Address, St. George's Hosp., Oct., 1895.

obsessions presenting characteristic mental and physical symptoms.

Nor are secondary sensations (phonisms, photisms, etc.) of the nature of imperative feelings proper.

Ordinary cases of insanity with "dominant" delusions or hallucinations do not, or do not necessarily, exemplify obsessions proper.

In each of these respects, and in others to be mentioned, conditions have been termed imperative ideas which in my opinion are not suitably placed in that category. Further on, we consider the close alliances of obsessions with convulsive tic, jumping disease, myriachit, and latah; and in respect of these also some differential distinctions must be made.

And the use of the term "fixed ideas" by some, as synonymous with imperative ideas or with obsessions, is unfortunate, since "fixed" was already a very useful term in psychiatry, applied to other morbid ideas. Nevertheless, when imperative conceptions become so constant and urgent as to constitute an insanity they are, and may properly be described as, a particular variety of fixed delusion, or of morbid insistent or morbidly dominant ideas. But to attempt now to confine the qualifying words "fixed," "dominant," to ideas which are of obsessive character—or to describe all such as obsessions, and all obsessions as such—is to introduce confusion into nomenclature; and is open to grave objection.

Parasitical, and quasi-parasitical, are qualifying terms which have also been applied to imperative ideas. But in most cases, at least, those from which they spring are essential and fundamental elements in the web of mental being. And if thus innate, in a sense; if their potentiality of existence is thus laid down in the foundations of the organism and merely awaits favouring circumstances to develop, or if, in some cases, they evince themselves even under conditions apparently most favourable to mental health, they are not essentially parasitical; and the parasitic semblance is only superficial, and from one and not the most important point of view.

## V.

(a). THE TRANSFORMATION OF OBSESSIONS INTO INSANITY.  
(b). THE SCALE OF OBSESSIONS FROM THE TRIVIAL TO THOSE WITH DESPERATE IMPULSES.

For convenience, and to save repetition, these two connected divisions of the study of mental besetment are taken together under one heading.

Many have fallen into the error of supposing obsessions to be always unimportant, and simply odd incongruous absurd conditions, amusing to the onlooker, although at last painful to the subject of them, or becoming so in most cases. And the next step usually taken reaches the major error of deeming obsessions to be always quite distinct from and unconnected with insanity.

Distinguishing tests have been framed between the two. Thus obsessions have been distinguished (Morel) from insanities by :—

1. The different interpretation of their condition made by obsessed persons from that made by the insane.
2. The absence of hallucinations and illusions in the former.
3. The absence of changes of personality in the former.

Yet cases break through these distinctions.

I must first briefly refer in a general way to impulsive conditions of insanity.

Impulses occurring in many kinds of insanity, and much of insanity viewed at large having something of an impulsive character, in its reductions, failure of inhibition, and lack of control; the impulsive phase is found especially in certain case-groups—namely, in those strongly-disposed hereditarily; in the insanities at the critical periods of life; or attending disorder of generative organs and functions; or various conditions of epilepsy, or of alcoholic overuse and disease. Imitation, also, may be a factor.

In this relation, the study of the mental-degenerative insanities is important; and one sub-group of these has as its simplest and least developed exponent the intensely interesting form in which the most striking symptoms are either morbid fears and doubts—anxious obsessions—or compulsive thoughts—conceptions of imperative character;

together with their effect on acts and conduct. For there is one form (simple hereditary insanity) in which a special type of impulsive symptoms is so marked as to almost characterise the malady; but essentially manifested by what at first are the lighter and trivial, harmless, and often absurd forms of compulsive thoughts or acts, and therefore casting light on the dangerous or deadly acts fundamentally of the same nature.

Following, rather, the line of dissolution in hereditary and degenerative insanity, we find these compulsive thoughts and feelings. They bear witness to a morbidly impressionable nervous system; often spring suddenly into being as if brought forth explosively and like a convulsion; either from some obscure and unknown incitation, or at the bidding of some trivial suggestion, utterly inadequate to effect the same result in the healthy mind. The compulsive thought is often associated with affective perversions, morbid antipathy and opposition, or with the existence of systemised delusion; is itself frequently a rudimentary delusion; occurs, like the impulsive *act*, often in hereditary mental degeneracy; or else in young, in pregnant, puerperal, lactating, or menstruating insane females; also at puberty and the change of life, or in cases partly of alcoholic or of traumatic origin, and it may be found in others.

The compulsive thought may be traced, in different individuals, from the most trivial to the gravest of its forms. Thus, there may be merely a recurring idea, recurring aberrant absurd thought; or there may be, of this kind, such as enter, hold possession of the mind, and are devils which cannot be cast out; or the sufferer may be tormented by morbid fears and painful conceptions, so severe and so fixed, at least for the time, as, also, to receive names as special forms of mental change, or even of insanity.

### *Impulsive Acts.*

From the compulsive thought or imperative conception, or from the compulsory feeling, springs the cognate impulsive act, which perhaps might be more distinctly specified as the *compelled* act. It may present itself as an isolated single act; may frequently recur in the nascent form, or pass over into action, may even remittently, or, for a time, constantly, dominate the whole life. Like the compulsory thought, so the impulsive (compelled) act may be traced in

different individuals in its various degrees of development and importance ; and these degrees may be observed from time to time in the same case.

When such an impulse culminates in a fierce criminal act, jury and judge are apt to look askance at and to disfavour medical evidence which testifies to the constraining effect of such impulse on the acts of those subject thereto. Such evidence is apt to surprise and repel the legal mind on the bench, the popular mind in the jury-box. But this prejudice or preconception melts away from the mind of the observant student of clinical psychiatry when he traces the impulsive constrained thought and act from small beginnings and trivial results, through a gradually ascending series of more important effects, up to the fulminating act—up to the consummation in some desperate deed of crime ; or when he finds examples of all these degrees separately in the individuals who may be arranged in a graded series.

In the simplest form, the compulsive thought and compelled act in question are merely a constraint to perform and the performance of some trivial act ; such, *e.g.*, and already described, as to touch a series of objects in a certain way and order of succession ;—to walk with steps regulated so and so ; to count up to so many ; to do this, or to utter some particular word or phrase before accomplishing some act of ordinary custom ; to get other persons to do or say something trivial, of analogous nature to the acts just mentioned, and having a similar object ; and to do this, at least in many cases, lest evil should befall, or lest the mind of the sufferer should be disturbed. Lest evil should result, and lest mental disturbance should occur ; for in many cases there is not merely the feeling of compulsion to the act but also a painful conception as to the necessity of the act, and as to the vague evils which impend if the impelling force be resisted or thwarted. Besides which, there is a feeling of anguish, and a painful inquiry concerning these morbid states of consciousness.

And, following the course of deepening dissolution, from these—the slighter and less important manifestations, as regarded from a social standpoint—we reach destructive and mischievous impulsive acts, so frequent in the insane, and we reach those which so often bring the subject of them into conflict with the penal law. The impulse may be to theft, drinking, fire-raising, self-killing, murder, etc. A proportion of all these impulses are derived from obsession

—obsession which has become aggravated, or has passed into what one might call “possession.”

I have already warned against the error often made of supposing obsessions to be unimportant and merely odd, absurd, and incongruous conditions, although at last painful to the patient; and against the allied error of deeming obsessions to be in all cases quite distinct from and unconnected with insanity. That these are errors is evident from the preceding considerations, which may be briefly summed up as follows. They are errors:—

A.—1. Because the sufferers from obsession tend to, and sometimes end in, one of the more severe forms of paranoiacal insanity:—

2. Because the condition itself may become exaggerated and modified, so as to pass from that in which its absurdity is recognised by the person affected to that in which there is conviction of its reality as truth, and the belief is acted on, governs the life of the person, and, for the time being at least, necessitates his isolation from the general community:—

3. Because the acts, or tendencies to act, vary from the easily resistible to the difficultly resisted, and to the irresistible, by a long and graded scale:—

B.—4. Because the acts vary from the slight and trivial vagary to examples of self-killing and man-slaying.

In one set of cases these felonious acts, or fire-raising, theft, etc., are examples of obsession—of true compulsion of the obsessive type. They form a distinct part of the total cases of each variety of the so-called impulsive acts, whether harmless or criminal.

Hence the enormous forensic importance of obsession. Thus, a share of the examples of results placed under the heads of destructive, mischievous proceedings, indecent exposure or act, theft, incendiarism, criminal assaults, suicide and homicide, are of obsessive origin and type. Side by side with these, and shedding upon them an illuminating light, are the simple vagaries issuing in whimsical singularities of act, perfectly harmless to others, amusing to the general, mere oddity, perhaps, to the victim at first, but subsequently often an afflicting, driving slave-whip, or grip of fettering constraint.

The transition, psychologically, from the simple morbid fear or involuntary compulsive feeling or thought, to

insanity — especially the insanity of doubt — seemingly consists in a transition from a state in which the patient recognises (perhaps laughs at) the incorrectness, inaptness, irrelevancy or absurdity of his thought or feeling, to the vesanic state in which he is engrossed by the vivid reality and validity of the feeling or thought, so that by it the life is essentially altered and the acts are largely dominated — in which, therefore, a truly delusive impress characterises the mind.

In the foregoing the *questioning* malady has been taken as a department of the *doubting* malady — of the besetting doubts.

If the subject is insane, with the delusion of doubt may be other forms of mental degeneration — *e.g.*, persecutory delusions or hypochondriacal ones; notions on his part that anything heard or seen refers to the patient; conditions such as dread of various kinds, fear of contact, or of defilement, fear of glass or needles; attacks of anguish and precordial anxiety; associated in some insane cases with delusions of suspicion or of poisoning; with hallucinations; and with despair.

On the question whether the so-called kleptomania, pyromania, suicidal- and homicidal-mania are distinct and separate forms of insanity, or are merely symptom-groups, we hold that they are the latter only.

In reference to the dangerous and destructive tendencies in obsessed and in allied cases, and to the need for legal power to control, restrain, and isolate the persons thus affected, a few lines are now cited in relation to one who is considered to be the father of Nihilism and anarchical dynamiting :—

“ Fifty years ago an eccentric, impulsive individual lived at Dresden. He came from Russia, whence he had been banished. . . . He had the mania for destruction to a point so extreme that if one did not take care to distract his attention he could not look for some time at any object without wishing to break it into pieces. An idea of his state of mind may be formed from the following anecdote. At a dinner given on the occasion of the marriage of one of his friends, and at which he had fulfilled the functions of a groomsman, he committed the most extravagant acts. He had constructed with the crockery and glasses a sort of scaffold, which the assistant feared would fall at any moment. He was persuaded to undo his work piece by

piece, instead of throwing it down at one blow, in the same manner as he wished to destroy all the Governments of Europe. But he was so excited that he took a Bohemian glass, broke it with his teeth, and swallowed the pieces." And, although this is another matter, he seems to have been regardless of the feelings and opinions of others, even of his "friends," for we read that, "a scalp disease compelled him to shave his head and he wore a wig, which he took off whenever he was not in a public place—that is, when in a friend's house, or wherever he was a guest, without caring for the opinion of those to whom he thus exposed the anatomy of his denuded cranium."\*

## VI.

### THE RELATION OF OBSESSIONS TO PHENOMENA IN PRIMITIVE MAN AND IN SAVAGES, AND TO CONDITIONS IN ORDINARY FORMS OF PARANOIA.

Firstly, in relation to obsessions in general, and for the moment more particularly to those different and composite conditions classed under the name of "onomatomania;" the germs of obsession are to be sought in primitive man, in savages, and in the phases of mental development through which civilised man has passed from savagery.

In the mentally degenerate person the early prior phases of thought in the race, long thrust aside, overgrown by new development and forgotten, may come again into prominence in consequence of irregular and exaggerated over-development and over-function of the older organised parts of brain and mind, owing to congenital relatively weak developmental power of the more recently acquired in evolution. Whereas acute and chronic mental disease in the non-degenerate, *i.e.*, the comparatively free from hereditary mental degeneracy, by putting out of use or destroying the superior and inhibitory activities, may lead to a somewhat similar result by another path.

Hence in the degenerate, *e.g.*, in paranoia, old superstitions and mysticism may arise and dominate the insane conception and the life. But, as bearing more immediately on our present subject, there is the close relationship between full-blown paranoia and the general state in which obsessions flourish, and one so close that the latter has by some been called "rudimentary" paranoia. And in some

\* *Alienist and Neurologist*, April, 1895, p. 206.

examples, both of obsessions and of paranoia, we find, for example, the formation of new words ; the veneration for and the formal worship of words ; a belief in the discovery of truth, or in the penetration of mysteries, by pronouncing words ; the attribution of enormous importance to mere words, or of extraordinary potencies to them. Or a similar worship of, or prejudice concerning, numbers, or the assignment of potencies to them—that is, to certain numbers regarded as mystical.

These we find not only in degenerate insane or obsessed persons ; but also as a relic of primitive man, in the customs and beliefs of savages of the present and of recent times, in the old mythologies and customs and sacred books, and in the literary forms and arrangements of mediæval poets, and of some modern scientists.

As bearing on this part of our subject are a number of relevant facts drawn from ancient races and their beliefs, from uncivilised peoples, from paranoiacs, and from the obsessed. There is the fabrication of new words by paranoiacs, the peculiar significance attached by them and by uncivilised races to certain symbols ; new words and symbols often having but superficial relation to things symbolised. Thus, to some, a hawk on a post yields the idea of the Divinity, an ostrich feather the conception of Justice ; and so on.

There is also the spell or charm, consisting of some words of occult power ; the incantation, or use of certain formulas and ceremonies to raise spirits ; the magical arts and effects of sorcery and enchantment by the invocation of demons or spirits, and their aid ; the act of conjuration by use of certain words and ceremonies to obtain supernatural aid, to summon in a sacred name, to expel evil spirits, or to allay storms, and other the like ; the enigmatical concealment of knowledge under the obscure language of a dark saying ; divination by the aid of evil spirits ; theurgical practices. Here, also, come many ancient, mediæval, savage, or paranoiac arts and practices, which aim at the unattainable by obscure or hidden inexplicable means ; such as divination by water, by the air, by the winds, by the hand ; or such as alchemy, astrology, and the hermetical philosophy. Of some of these the traces and relics are monumental, as in the labyrinths and pyramids of the ancients. Of others the relics are such as the belief still existent in magic, in the evil eye, and in measures to avoid its effects. All these

have a bearing on the onomatomania of some obsessed persons, on their formulae and ceremonial observances and symbolisings; and those of some paranoiacs.

Tanzi states that Calabar negroes find their lot good or bad according as the owl is heard to the right or left, Calmucks according as falcons are on the right or left side. Sneezing, yawning, and spitting have a special assigned efficacy among different peoples and sects, obsessed persons and paranoiacs, as admitting or getting rid of evil spirits, or as having some analogous effect or efficacy. And the French child of the people (Tanzi) caught cheating at play, spits on the ground and utters a formula of words in order to make amends and to ward off mishap.

Similarly, we have instances both in obsession and paranoia of various protective procedures, various movements, acts, signs, or gestures; made in paranoia in order to ease the disturbed feeling, to avert evil, to thwart the adversary; or made by the obsessed in order to assuage the fear and driving impulse, and to baffle the evil chance.

Recurring episodic exacerbations of the abnormal conditions may occur also in both sets of cases; and so may the phenomenon of double consciousness occur both in paranoia and in obsession which has become insanity. Upon this subject of dual personality or consciousness, and the conditions with which it is more immediately associated, we cannot enter here.

## VII.

### THE NOSOLOGICAL POSITION, ALLIANCES, AND CONGENERS OF BESETEMENTS.

Besides what has been said of the soil from which besettings spring, and their frequent fundamental association with neurasthenia, paranoia, hypochondriasis, hysteria, and hereditary mental degeneracy, some other of their nosological connections and alliances must be very briefly glanced at.

Not without some claim to be considered as rudimentary abortive forms of paranoia, obsessions are observed to have intimate blendings and transition phases of every possible extent and degree, on the one hand with the phenomena of the insane diathesis simply, and on the other with those of paranoia and of imbecility, of (so-called) moral insanity, of original paranoia, of hebephrenia.

There is close alliance also with some phases of hypnotism and of hysteria.

For a moment let us turn to the relations of obsessions to hysteria.

Like hypnosis; nervous shock or nervous exhaustion, by summation of a series of petty trials, may set up in the mind a ruling idea which tends to fixation and to recurrence, which defies abolition, is rebellious to control, and at last may become triumphantly self-assertive and insurgent. Representation is diseased: this or that representation or representation-group and its associations become over-potent.

Existing always in hysteria in some degree, either rudimentary or more developed, is a second consciousness, *i.e.*, double consciousness. In the obsessed state, so strangely different from the usual, the intrusion of the strange insistent ideas and feelings produces a state of consciousness so different from the usual and normal one that it may be taken as a condition of incipient division of consciousness, as a rudimentary degree of that formation of a second consciousness which, when completed, makes a double consciousness or personality. In obsession there is a tendency to dissociation of ideas, to disaggregation of the personality; a condition which is fundamental in the psychic sphere of hysteria. In each of them suggestibility is enhanced. In each is an over-impressionable, mobile, sensitive nervous system. In each there is failing volition, diminished control over attention; hesitation; doubt. In each the field of consciousness is narrowed, the higher brain-functions are enfeebled, unstable, labile, impulsive. The perceptions, representations, and emotional accompaniments are not properly summed up into series and fused or synthesised; hence a tendency to division of, and a second phase or form of, consciousness.

It is not asserted here that there are no differences, that the psychic phenomena are identical in the two cases. In hysteria the strange unwonted intruding, and perhaps subconscious, idea makes for somatic manifestation; the ideal obsession seeks outlet in emotion and act. But in either, the condition of volition, attention, association and the narrowed consciousness are destructive of selective capacity, and permit, nay invite, the easy rise of downright mental disorder of the insane kind. In each, an emotional stimulus may diffuse itself through a wide nervous arc, and occasion a series of dramatic phenomena, promoted by suggestion and directly the outcome of an irritably weak, unstable,

labile, nervous system. Thus in some obsessed persons are fear-fits or paroxysmal terrors—vague and horrible ; cardiac and respiratory change, thumping arteries, dry mouth, dim vision, trembling or weak or flexed limbs and frame, or spasms ; heats, sweats, urgent evacuations ; or the perverted sensations already mentioned in an early section, as the epigastric and thoracic ; or severe local or general pains.

Bearing on the relations between the hysterical mental state and that in obsession, a case by Kovalewsky is instructive. The following is a brief abstract of it :—

Male, 32, of neurotic family, from childhood excitable and enthusiastic ; drank when young, and had frequent vertigo, back-pains and hand-tremor. At the age of 18, after hearing of his teacher's death, his mind became occupied with extraordinary force by insistent tormenting queries, and he was full of fear a whole day. Next day came a parting ; the world existed for him no longer, he lived out of the world, but still spoke to others, went on his business, no one remarking anything unusual in him. This went on for two months, then he awoke in a far-off town.

For years afterwards, alternately drunken and sober, and having attacks of vertigo, darkness before eyes, leg-trembles, palpitation ; nervous, irritable, sleepless ; intense seizures of agoraphobia accompanied with emotional dejection, groundless jealousy-attacks, the nature of which he recognised.

A case by Ball\* is worthy of mention. Everything came to look strange and queer to the patient, yet in the same shapes and colours as before. Several years afterward he felt himself diminish and disappear, and he could not regain the lost self. Everything around still seems strange, he knows not what he is, and plies himself with all sorts of questionings about existence and reality, has lost all sense of reality, believes not in the existence of himself or of others, yet he and they are "things ;" nor does he believe in the existence of the objects he sees and touches. For him, the world is a huge hallucination ; himself he likens to an empty paper bag, his pulse is a pulse-shadow, and when he eats the shadow of food enters a shadowy stomach. Knowing these ideas absurd, nevertheless he cannot conquer them ; he cannot rid himself of the idea of his empty nothingness.

The conditions of vigilambulism, especially in relation to the subjects of dual or of alternating personality or con-

\* *L'Encéphale*, 1882, p. 235.

sciousness, also bring hysterical and so-called somnambulic states into relation with obsession. For obsession may take the outward form of a driving impulse to travel, very much reminding one of the quasi-automatic perambulations and peregrinations of the vigilambulic.

But without dwelling on conditions such as these, there are several somewhat unusual maladies which have close connections with obsession.

(a.) *Convulsive-tic disease*.—After long-continued convulsive tic, mental abnormalities may appear, and obsessions frequently occur in persons affected with convulsive tic. In convulsive tic the idea of speech—or other—movement is in consciousness, and those affected have the idea of what they are about to say or do under the influence of the tic. Like obsessions, in some instances it is much affected—and either in the direction of incitement or of arrest—by the mental influences flowing from various surroundings. Moreover, what are practically convulsive tics may come for the first time in those already obsessed, and may constitute a variety of obsession.

The movements are co-ordinated, recurring in paroxysmal seizures, are sudden, uncontrollable by will, identical in the same subject, violent, quasi-convulsive. With these may be explosive compulsive ejaculation of foul language and oaths, and sometimes the imitative, and similarly forced, repetition of words heard, or of acts or gestures noticed by the subject of convulsive tic. But in its purest and most simple form, as I believe, there is merely the *tic* evinced, so that this alone suffices if it possesses the characteristics usual to acts due to obsession.

The movements in convulsive tic are of reversionary type, of a lower, simple, more infantile order, as well as of a perverted character, and by long repetition may assume a merely reflex type.

(b.) The “*Jumping Disease*” of the North American Indians has close nosological connections with obsession. Practically it is much the same disease as (c) the “*Myriachit*” of Siberian Asiatic Russia; and as (d) “*Latah*” of the Malayan and other regions. One may look upon all these three as being the same, or very closely allied if not identical.

(c.) Thus, in *Myriachit* persons, not otherwise obviously abnormal, involuntarily perform senseless, sometimes criminal,

acts, spontaneously, or in obedience to commands from others, or imitatively repeat words and acts they hear and see. This may last for years. It may occasionally be epidemic. It presents a kind of speech-obsession and of other obsessions.

(d.) Likewise in *Latah*—probably the same as “Myriachit,” but occurring in a different race and region and circumstance—the person affected executes movements and utters sounds against her will. There may be repetitions of voluntary utterances, or made at suggestion of other persons, or through imitation. The utterances are usually disconnected words or foul or vulgar expressions, or those of echo-speech. The condition is easily produced. In some cases a look or gesture by another person suffices to bring it on. Volition cannot check the movements; there is consciousness of what is being done, and the intellect is said not to be disordered. But persons with *Latah* may become insane. Hereditary as a rule, and mostly found in women, it occurs in a people possessing but little independence of thought and of action, but little individuality.

(e.) *Phases of hypnotism*.—Finally, I will merely again mention the fact of the existence of points of close correspondence between these four last-named conditions (some of which are probably identical) and obsessions, on the one hand; and on the other hand phases of hypnotism.

(f.) *Lascivious compulsive thoughts* may be true obsessions driving to impulsive indecent acts of perverted lustfulness, even to bestiality, sodomy, and congress with the dead. But besides these there are the somewhat congeneric conditions of inverted sexual feeling, so-called.

Among the many subjects raised in this address, a few may be more pointedly recapitulated:—

1. The psychological nature and clinical position of mental besetment, and those of its several kinds in their inter-relations.
2. The medico-legal importance of obsession.
3. The propriety of abandoning the use of the erroneous, misleading name “*délire du toucher*,” which, moreover, has been used in contrary senses.
4. The establishment of a neglected, little known variety of obsession as being one of the most fundamental, and representing obsession in one of its purest and most simple forms. And much of the same for a cognate variety.

## VIII.

## CLINICAL CASES.

In illustration of some of the preceding statements, brief summaries follow of a few of the cases observed by me, and grouped in the manner below:—

I. Those illustrating ordinary, simple, comparatively harmless, trivial, absurd, incongruous obsessions.

II. Those illustrating the increase of obsessions as part of the passage of the case into insanity, in which the obsession, now become pathological *possession*, still plays an important part, often the most important one.

III. Those illustrating the clinical, psychological and pathological relationships of the mild trivialities of impulsive obsession to the dangerous, deadly impulses, for example, suicidal and homicidal.

And under this head also (IIIa.) a case linking obsessions with impulse in insanity of more common type; and (IIIb.) a case linking obsessions with convulsive tic in paranoia.

These last two cases might well be separately grouped as a fourth set.

I have observed many more cases which exemplify the above, and other, conditions and relations of obsession.

## I.

*Cases of comparatively simple nature.*

The length already reached by this article and the material yet to be added warn me to abbreviate here by stating the heading, only, of the first case and of the second; of which the former illustrates a very simple type compatible with hard brain-work and successful professional life, and the latter illustrates the same passing over into a condition incapacitating for pursuance of the avocation and self-maintenance.

*Case 1.*—Of neurotic family, a day-dreamer and castle-builder, in childhood thrown much upon his own resources as regards amusement, after having suffered severely from malarial fever which apparently altered the trending of development, mental and physical.

The obsession to touch: the obsession to walk on the pavement, etc., avoiding the lines of junction, or to walk in a particular way with steps ordered, so many, to the piece of

stone or wood. Also the impulse to count so many, or to utter some formula of words before a certain moment: or to do some other act, trifling in itself. With these, fears and ideas either of vague or of definite evil to happen to self or to others if the obsession was not placated by the especial performance in mind at the moment. Also, a vague recurring quivering, anxious dread of occupation and fixation of the mind in any one thought, which might thus cast out every other object of attention and consciousness.

In youth, the healthful training of schools with games and sports, and, later on, the severe professional studies and struggles of adolescence and manhood, aided by temperance, repressed the obsessions; and they never really troubled, nor ever advanced beyond the simple rudimentary state.

*Case 2.*—Admirably brought up, but as a child nervous and sensitive. In early adolescence the usual vapid condition at that age in the unstable. Later on, severe headache, and easy fatigue on moderate mental exertion, both of neurasthenic type, put an end to the higher education and to the projected professional life. Increase of neurasthenic symptoms and obsessions temporarily brought to a close the substituted commercial life which had been well begun.

Depression; obsession; the sudden assumption of the strangest attitudes; grimaces; morbid doubts. Calculations were vainly done over and over again for fear of making mistakes, rendering him worse than useless in business; repetitions and verifications of everything; dread of a simple easy journey; paroxysmal morbid dread and insistent ideas as to the most simple undertakings; the writing of the shortest letter only accomplished after many attempts and repetitions, and even then not to his satisfaction.

## II.

### *Illustration of increase of obsessions as part of the metamorphosis of the case into insanity.*

*Case 3.*—Male, admitted at the age of 50 years, of no regular occupation; had a little money, and friends able to support him; at one time had been an omnibus conductor. The attack of mental disease for which he was admitted was stated to be the fourth, the first being at the age of 20 years; and he had been in other asylums for the previous attacks.

At home, before admission, he had been turning the faces of the pictures, hanging in the rooms, to the wall. He

became so excited by the mention of the number *nine* that he could hardly be kept from the use of violence and terrifying language until the number *ten* had been uttered. His demeanour was strange. By his violence, he had been the terror of the home, where lived his mother, brothers, sisters and children. He expressed delusions that people were hidden in corners to startle him and prevent him from taking his meals; and in the house and out of it he walked or ran about, looking for a boy whom he imagined to have robbed him and to be hidden away in order to disturb his meals. Unless the water dropped a certain number of times when he washed himself, he would declare he must cut his own throat, and that he could not urinate comfortably unless the people in the house sat around a table and put their hand on particular articles; and could not eat breakfast without a certain number of drawers in the room being open. He was infuriated by the utterance of certain numbers. Was wild in appearance, restless, irritable, aroused by trifles to violent outbursts of angry temper.

*On admission.*—Some signs of pulmonary phthisis; urine 1015, acid, no albumen or sugar. Weight 134 pounds *Av.*, pulse 100, of increased arterial tension, heart slightly displaced towards right side. The hair was turning grey. Admitted masturbation as a boy, and gonorrhœa on several occasions since. His glance, expression and aspect were very peculiar. He alleged that he had had "nervous debility" for 40 years; and was willing to be under treatment, and offered to be food-taster to the asylum. He said that but for his nervous debility, or impotence, he would have married a woman with money, and have been strong as a lion and of 14 stone weight. He was garrulous, excitable, rambled from subject to subject, evinced animosity towards a brother-in-law whom he groundlessly accused of being the cause of all his troubles. He said his disorder prejudicially affected his food-taking. As to the utterance of certain numbers his condition was still as above described. When he went into the street he was "afraid of everything flying up till he can kick it." Shortly afterwards, he was querulous, discontented, quarrelsome, looked mysteriously, suspiciously, and frequently behind doors and under plates and chairs, and was most peculiar in action and demeanour. Occasionally, he seemed to have hallucinations or illusions, *e.g.*, of objects passing before his eyes. He had peculiar, set, ways of throwing water about when washing himself; but, in compensation for this, was less obsessed as to

numbers, or as to water dripping, then. For at first the case stood thus: when he hears the number *nine* he must hear *ten* also, or else becomes agitated, "upset," and pained in the head; when washing feels bad unless he hears the water drip a certain number of times; when he hears a ring or knock at the door is compelled to get up and look to see what it is, or else becomes, as he expresses it, "quite bad in the head." Feels depressed, melancholy, confused, worried in mind. Used to feel compelled to use several successive basins of water in washing, even after being well-washed, but not so lately; this he declares was not from any fear of defilement by contact. Is restless, fidgety, and complains of great "nervousness."

In a few weeks, he was removed, being much better; but was re-admitted about nine months afterwards, as being dangerous and perhaps suicidal. He was still phthisical, and the weight was now reduced to 123 pounds. Among the facts stated in the certificates were his groundless statement that he had great knowledge of music; and that he would commit suicide, as he wished to see the Almighty and the devil; that he drank much neat whisky, but could not swallow any until he had run upstairs and looked through a particular window; that he assaulted a clergyman who called, swore he would pull the house down, tore off the banister, handed his brother a poker and asked him to kill him. Believed that nothing could be done with one hand only, in his presence, and that if it be attempted the other hand will start up and injure him, therefore when being examined made the doctor hold the stethoscope with both hands. Refused food, was violent and threatened to kill others. Would sit or lie for hours in certain postures; and would call his sister up at all hours of the night to place both of her hands on particular objects in the room.

*On re-admission.*—Extraordinary demeanour, flings himself on the sofa, and tries to kiss the medical officer; goes through odd useless movements and antics; threatens when offered a cup of tea; makes reckless self-contradictory statements. Says he is rotten, that the attendant is his Saviour; asks for poison in order to die; breathes faster when stethoscoped, on the obsession that, if he don't, he won't get what he asks for. Is still disturbed in mind about numbers as before. If one near him puts out one hand only, he becomes uneasy, thinks the unmoved hand would shoot out at him; and his mind dwells upon this.

At times he was extremely irritable, unreasonable, re-iterative, ill-tempered, raspish, discontented, intolerable, and making threats of suicide if he did not get his own way. The same ideas as before about the second hand flying up to strike him; the same mental disturbance and anxious tumult if he does not hear the sixth drip of water follow the fifth; the same illusions as to hearing knocks and people addressing him, and thereupon compulsion to go to seek, at the door, persons whom he never finds. At meals he got up every two or three minutes to look under tables, chairs and plates, and behind doors; and if the door thitherward was not locked, would also, then, go upstairs to look under the beds.

After about 18 months he was removed; but to the last he was irritable, changeable in his views, self-contradictory in statement, suspicious, querulous; and at times deluded that his food was tampered with or altered. Fancied he heard rapping noises upstairs, and felt under compulsion to go up and see what might be there.

Subsequently, he died of phthisis in an infirmary; and whilst there was so excessively querulous and given to outbursts of such bad uncontrollable foul language, and outrageous temper, that the nurses gave him the name of being the most trying and foul-mouthed patient they had ever had the misfortune to nurse in the infirmary (coprolalia).

Other members of the family evinced the indications of hereditary mental degeneracy; and after the patient's death it was found that one of them had induced him to leave all his money to that particular member, who had not any special claim on him, but who pandered to his wishes in order to secure a mean advantage.

### III.

#### *Cases Illustrating the Relations of the Mildly to the Dangerously Impulsive Obsessions.*

*Case 4.*—Male, aged 43, of no occupation; he had been taken off the streets by the police, and nothing was known as to his previous history, but he was stated not to be suicidal, epileptic or dangerous. According to the medical certificate, he stated that he heard the Saviour and His disciples tell him there was no hope for him, and had heard people talking about murdering him; and he was said to

have been noisy, excited, violent, at the infirmary whence he was admitted.

Being out of work and short of food, he had wandered in the streets. There he said he had heard heavenly music in the air and voices from Heaven declaring he would go to hell, this being followed by what, as he described it, seems to have been a convulsion with consciousness. Later on, at the infirmary he saw big ugly figures with lights in the eyes; thought he had got to hell, smelt the brimstone, and saw coffins there.

He was very restless, nervous, peculiar. Had recurring fright, and to check this and prevent himself from sinking to the floor and to get rid of the idea of the relics of the fright, he had to turn his eyes and mind on some object near by. He had phymosis; denied ever having had coitus, or having ever masturbated. Had occasionally a bad smell, lasting a second or two. The birds tell him whatever he thinks, and prompt him to do as he does; he sees transparent forms when he is depressed, sees them usually by night, and they prevent sleep, but sometimes by day. Ghost-like forms float before him at night.

He stated that he had been very nervous since being startled and shaken, by someone suddenly putting a hand through a workshop window, near him, when he was at work; and he had been in difficulties ever since, for the more he nerved himself up to meet trouble the more he broke down, and, therefore, had to dodge "trouble." He has been subject to sudden "nervousness, as if the cords of the nape contracted, the nerves of the forehead gave way, and there was a heat to the head, a jumping of the heart, and a confusion in the mind." This condition takes him especially, or more irresistibly attacks him, when he is in low health, or despondent; and, if attacked then, he may fall; but if attacked when in good health he can draw himself together by a determined effort to take the mind off the subject. At times he gets "an irresistible impulse" that to get rid of a feeling of nervousness he "must change the mind," *i.e.*, turn the mind to something else, do something, think of something else, it don't matter what; and that if he don't change the mind in some such way he will get all sorts of foolish thoughts in the mind, and feel agitated and confused mentally. These imperative conceptions, and the simple imperative acts they led to, were very marked.

For a time, he was very depressed, nervous and anxious-

looking; thoughts about troubles and ghosts would come into and torture his mind. He frequently, in *quasi*-seizures, felt compelled to walk very energetically to avoid "going mad and doing something desperate."

Eventually he recovered.

*Case 5.*—Male, single, had been trained as a musician; admitted, on the first occasion, at the age of 21; the attack of then-existing mental disease being said not to be the first, and to be of about two years' duration. He had notions that family quarrels are necessary and healthful recreations; he connected past and present facts which had no relation to each other; expressed the delusion that a young woman had fallen in love with him, wandered about after her, went frequently to the outside of her home, and on one occasion accosted and annoyed her when she came out, so that she gave him into custody. Towards his brother he showed baseless prejudice, animosity, and violence. Fits of gusty passion had occurred; *e.g.*, one of his brothers gave another a watch, whereupon the patient attacked the giver and cut him through the cheek.

*On admission* was childish; and incoherent at times; thought his brother was jealous of his height, that he had been placed under care to be made ashamed of himself, and that there will be "a jolly lark over it" when he returns home; that a girl at whom he winked in the street came to his father's shop on purpose to see patient, or else because her father, driving by, noticed patient. That she wished to marry him, he concluded because she ungloved her hand in the shop. At times he said he was placed in the asylum because her father died.

Being removed by his friends to his home, after being upwards of a year under care, he was brought back in two days, having, under a destructive impulse, completely wrecked his bedroom and furniture during the night preceding his readmission.

Next year, he was worse, walked and sat alone, muttered to himself occasionally, became suddenly and impulsively noisy, shouting excitedly, jumping on a chair, or throwing himself prone on a garden path and spitting on a stone. His habits were "dirty"; he lost flesh, had moist and clammy skin, masturbated much. Under various measures of treatment he gradually improved.

Next year, was at times making constant inarticulate purring sounds, nodding the head rapidly in circular move-

ment, and at these times ran about so much and impulsively that a special attendant had to take charge of his exercising, as it was not safe to let him go about among the other patients in the garden. A year later on he was at times laughing childishly and caressing other patients; at other times silent, depressed, taciturn. He was often sleepless and restless.

Improving somewhat, he was taken home for nearly two years; but was brought again, having been impulsively violent and destructive. He was forgetful, gave silly reasons for his acts, made shallow absurd remarks, and in manner and appearance was simple and foolish. He indulged in arm-waving and facial grimaces, and muttered much to himself.

Later on, the impulsive outbreaks became more frequent and dramatic. Sometimes they were sudden impulsive attacks on attendants, made without any warning or overt reason; sometimes the acts consisted of violence to surrounding inanimate objects, such as the smashing of crockery-ware with the fist, the breaking of windows, looking-glasses, chairs, or the pulling down of gas-jets and globes; and in doing so he often injured his hands. When these destructive impulses were prevented from being carried into execution, he turned upon and expended the impulsive eruption on the person thwarting the destructive rage. Facial contortions and grimaces, and peculiar tricks of action, all bore a compulsive imperative appearance.

He often stood, stupidly muttering and talking to himself, making a series of monotonous gestures and grimaces. The habits were "wet and dirty"; cardiac and valvular disease (aortic stenotic) also existed. On one occasion he broke a man's clavicle in an impulsive outbreak; on another he wrecked the furniture of a room.

He cannot give any accurate account of himself; is careless and off-hand in replies, prefers not to know the true answer to any question. Is devoid of interest in anything and of affection, does not care to occupy or amuse himself in any way, although he often plays the piano and this is apparently the one exception to the statement just made. He is most easily led by suggestion to make almost any assertion and to contradict himself at every second sentence. He is the most superficial of shallow personages, and many of his statements are palpably absurd and ridiculous.

When walking with his attendant he often exhibits very

mild forms of obsession ; e.g., in walking around on a rectangular path he regularly starts off to doorways at each of two of the angles, makes a stooping movement, then turns sharply, and comes back to rejoin the attendant. But when others are standing at such corner he looks in the direction in which his usual excursus is made, but the pre-occupation of his route arrests the obsession-act for that term. Also, at times, he will suddenly make several half-circular movements with one leg, or hop several times on one leg and then on the other, and this with all the characters of an impulsive act based on an imperative or impulsive idea. At such times he also makes incoherent impulsive utterances, apparently speech-obsessions (onomatomania) then exist.

In the severe and desperate impulsive acts of violence, he spits furiously as if by a *convulsive tic*, and utters impulsively, uncontrollably and consciously a set of foul and abusive words—as if directed at the persons holding and controlling him, or attempting to do so. But the same, or similar, foul words are repeated not only at the time but on each successive occasion, and the utterances are compelled by the paroxysmal morbid impulsive activity—in a word are the outcome of obsession.

### IIIa.

#### *Case linking obsessions with impulse in insanity of more common type.*

*Case 6.*—Male, 42, married ; bootmaker. From a previous attack of insanity he suffered a year before, for which he was three or four months in an asylum, and was alleged to have recovered. This attack's cause was stated to be unknown, and its duration one week. He had been married nine years without children.

The medical certificate stated that he says he don't feel clear in himself ; feels as if he would fall down when he is walking, and that lately whilst riding outside a tramcar he had a very strong impulse to throw himself off, and that he had a feeling continually coming over him to commit suicide if the means were handy. Also that he sits moping in corners, crying for hours, and is generally depressed. He continued to mope, cry, and have suicidal tendencies. He was nervous, shaky, but had not drunk alcoholic fluids for a year and a half, he said, although he formerly took too much

for some years. He admitted self-abuse when young, wet dreams afterwards; and thinks since his marriage there has been sexual marital excess, as he sometimes had coitus three or four times a week and felt worse after it. He and his wife were a mutually uxorious couple.

He was nervous, fidgety, was somewhat deaf and affected with tinnitus, both especially in the right ear. He said he had (on this latter occasion) returned to the workhouse because he was afraid of a knife or hammer lest he should injure himself or others with them. "A nasty feeling comes over him; the noise in his head, and the noise, even in a quiet ward, work him up to be very nervous, excited, as if he would throw himself down to get out of the noise." This state, he says, is not put on him by other people, but comes of itself, and not in consequence of any wrong-doing of his. Says he feels "worried, restless, and uncalm." He cannot account for this except by the noise in the ears—the hissing, rushing, or bell sounds there—but adds that he is probably in this way owing to self-abuse in youth and that his low spirits and worry are due to his own fault. After being talked to, the sound of the speaker's voice seems to ring in his ears. Before he left home was always thinking he smelt fire. Owing to an injury at the age of five years, he had lost the sense of smell in the left nostril. The sensorial perversions appeared to be limited to hearing and smell, chiefly; but sparks before the eyes were also complained of.

The impulses were worse indoors than out, and bore some relation to the size of building he was in (claustrophobic element). A creepy feeling pervaded the scalp, and when his head was tapped by finger-tips it sounded hollow to him. Frequently felt he must attack and injure those around him; as well as having frequent impulses to suicide; and would do these deeds in any way he could get the chance to.

Two weeks later on, there were bad tastes in the mouth, a humming noise in the head, occasional feelings of faintness and feelings of being "heavy-headed" or "thick-headed." He declared that indecent thoughts were put in his mind by others around him; a statement for which there was no objective basis; and he still suffered from impulses of violence to others.

The impulses to attack others were extremely strong and almost uncontrollable, so that sometimes his hands actually

moved to strike someone, and could not be altogether checked.

At times he complained of terrible noises continually in his head, aggravated by any sound made in his hearing.

The frequent impulses to homicide continued, but he wished to avoid the disgrace he would bring on his family by doing "a murder;" for often he suffered the dreadful feeling, thought and compulsion to injure or kill someone. Treatment of various kind was tried with some improvement to the state; but the depression, the dreadful feelings, and the imperative conceptions to bite or injure or kill someone did not cease, although lessened; his look was often pale, agitated, distressed, and he frequently besought to be shut up, put away, or isolated, lest his impulse to kill should be effective. Under treatment he gained weight.

Eight months after admission he was removed.

### III B.

#### *Case linking obsessions with convulsive tic in paranoia.*

*Case 7.*—Male, single, aged 55, member of the legal profession. He had for some time been under care in a public asylum, on a former occasion, but although liberated therefrom had never recovered, and rapidly deteriorated into a totally incurable state when left to his own devices and control. One of the results of his being so left was the excessive use of tobacco, which was one of the alleged causes of the condition for which he came under my care, the other alleged cause, namely, "over-study," being one for which there was no real ground, although his fitful spurts of mental work, no doubt, were not improving to the mental state. He lived by himself in untidiness, disorder, and dirtiness; until one day, when he issued forth on the street with his trousers undone, was told of this by a passer-by whom he at once knocked down, as he did also a policeman who came to arrest him. He was then taken in charge by the police, found to be insane, and was put under care and control under the lunacy law.

The certificates under which he was admitted, described his delusions of conspiracy against him by his relatives and others, including a public body governing a town, to deprive him of the means of existence, and prevent him from following his profession; also of his being followed about and watched, and the sale of refreshments to him pre-

vented ; and that, if rich, he would have been murdered by, or at the instigation of, the same persons. Also that a sum of money had been demanded from him, for rent, which had reference to the numbers on some Assyrian and Egyptian stones. The certificates also described his inability to give a correct account of himself, his general neglect of personal appearance, his slovenly, dirty ways, aptness to partly undress in public, his fits of laughter interrupting his recital of events, his absence of self-respect, his general restlessness and his previous acts of barricading the house in which he lived, and of arming himself with firearms against imagined attack.

*On admission* he was in the same general mental state as just cited from the certificates ; besides which his convulsive ties of violent paroxysmal *spitting*, *hawking*, and *snorting* were noticeable ; these were quite uncontrollable, were associated with momentary mental excitement, and increase of irritability.

Several months afterwards he was still very troublesome, being very untidy, slovenly and self-neglectful in his inclinations, and resistive and resentful towards the necessary operations of being cleaned, and made and kept tidy (or rather as little dirty and untidy as possible). As he would not do these operations for himself, they had to be done by attendants, and the touching of him, for such purpose, he denounced as an assault. He still often stamped about in paroxysms, snorting, or hawking, or spitting, or doing two, or all three of these loudly, uncontrollably, and apparently under great mental excitement ; also swearing and muttering much to himself, and annoying those about him. In consequence of his solicitor having given him a copy of an affidavit which it became my duty to make about him, he became very bitter and abusive towards me ; and on one such occasion, when thus excessively abusive and possessing little self-control, he began to proceed to physical violence. He was often restless and noisy at night.

Later on he would frequently open conversation with me by abrupt reference to conspiracy against him, on the part of his relatives, his utterances being rapid and disconnected. The memory was impaired. He was often restless, walking up and down hastily, sniffing, snorting, blowing through the nose, paroxysmally, in a peculiar way characteristic of him, talking angrily to himself and overturning and tossing about books and newspapers. He was querulous,

and made trumped-up charges about the necessary personal care and attention he received ; none of which latter he desired, being still regardless of cleanliness and personal appearance ; and manifesting filthy habits and eccentric ways. He still declared his relatives were plotting against him and squandering his money.

Three years after admission he told me in one conversation that, a number of years before his admission, he had had the delusion that " it was all nonsense about their killing the Abyssinian king, and what it was alleged, in the newspapers, they were doing there, that in fact it was a trick they were playing " to deceive the public—also that a certain ordinary policeman was an old friend of his, a somewhat distinguished man. He alleged that he had been driven insane—" tormented into it." He was still inclined to be—if he could get the chance—very untidy, dirty, restless ; occasionally stamping up and down furiously, either indoors or in the grounds, snorting violently, muttering and talking as if denouncing or addressing persons not present. He stated that he was in a frightful position, his relatives and others continually " pressing upon " him, or " keeping up a pressure on " him ; that certain relatives (named) have had him put under control, partly in order to possess themselves of his money, partly to get him out of the way, and partly " for cruelty and spite." He alleged, delusionally, that the town treasurer of G— had told the people near patient's London abode that he was mad, so that he had been continuously watched about the neighbourhood, and such a burden and pressure was kept upon him that he could not follow his profession, and so that he was, practically, kept out of it ; that he could not get his money, and had always been kept out of it and told that he was a blockhead ; and that a man watched him all the way on a journey of several hundreds of miles he made to London. Yet he admitted that he had been out of his mind once or twice ; as, e.g., when he had said that some stranger was Sir —, a neighbour of his.

Shortly after this he was removed, relieved.

## IX.

### THE CLINICAL PHENOMENA OF OBSESSIONS.

I think the best description, and the earliest full one, of some of the forms of obsession is that by George Borrow in the pages of *Lavengro* ; and never since I read it with the

fascination of boyhood has the memory of the wonderful delineation faded altogether. Nor is it without surprise one does not find it quoted in medical writings on the subject.

Borrow was a Prince among the English Romancers. He wrote from nature with marvellous fidelity and force. *Lavengro* was published in 1851, and contains a description of some obsessions, which, although not absolutely the earliest, was the earliest of any fulness or of masterly kind. Moreover, I believe that in it, and under the guise of different personages in the romance, he described his own case. How else, at that time, he could have obtained so conspicuously accurate and clear a knowledge of the condition it would be hard to say. It is one of the exceedingly few examples of mental abnormality accurately portrayed in works of fiction; it is a cry from the deep waters of affliction; a marvel of self-representation fashioned in the fire of suffering.

Borrow lived the life of a solitary recluse and wanderer. He was usually termed "eccentric;" as such he was described by some of my relatives who knew him. In my youth a projected interview with him on a subject of mutual interest was not carried out.

On grounds which cannot be discussed here, I think that, under the title *rôle* of *Lavengro*, Borrow describes some of the phases of obsession in his early life; under the guise of the elderly literary personage, some of the phases coming on in his later life. Besides the obsessive, the neurasthenic, melancholic, hypochondriacal, and other, elements are strongly depicted.

In the order of succession just referred to they are described as follows:—

"A lover of nooks and retired corners, I was as a child in the habit of fleeing from society, and of sitting for hours together with my head on my breast. What I was thinking about it would be difficult to say at this distance of time; I remember perfectly well, however, being ever conscious of a peculiar heaviness within me and at times of a strange sensation of fear, which occasionally amounted to horror, and for which I could assign no real cause whatever. By nature slow of speech, I took no pleasure in conversation nor in hearing the voices of my fellow creatures. When people addressed me I not unfrequently . . . turned away my head from them and if they persisted in their notice burst into tears. . . ." (There is then an account of seizing, at

the age of three years, a viper which permitted him to do so; and of convulsions and unconsciousness from eating poisonous berries). . . . "I loved to look upon the heavens, and to bask in the rays of the sun, or to sit beneath the hedgerows and listen to the chirping of the birds, indulging the while in musing and meditation as far as my very limited circle of ideas would permit."

A book is sent to him as a present, and before he knows what it is like "all at once a strange sensation came over me, a singular blending of curiosity, awe, and pleasure" which he refers to those more secret and mysterious nerves in which he has a notion "the mind or soul has its habitation, which . . . occasionally tingle and vibrate before any coming event closely connected with the future weal or woe of the human being." The book turned out to be *Robinson Crusoe*, and the previously listless, pondering child was soon cantering before a steady breeze over an ocean of enchantment.

There are other references; but we hasten on to Lavengro at the age of 16, and the choice of a profession for him.—His erratic courses; such as forsaking the study of Greek for that of the Irish tongue; the study of Italian and the Divine Comedy for Rommany and its gipsy lore; placed difficulties in the way of choice. But now "my strength and appetite suddenly deserted me, and I began to pine and droop . . . and was soon stretched upon my bed, from which it seemed scarcely probable I should ever more rise. . . . I made up my mind to die and felt quite resigned." . . . A favourable change occurred. . . . "I had become convalescent it is true, but my state of feebleness was truly pitiable. I believe it is in that state that the most remarkable feature of human physiology frequently exhibits itself. Oh, how dare I mention the dark feeling of mysterious dread which comes over the mind, and which the lamp of reason, though burning bright the while, is unable to dispel! Art thou as leeches say, the concomitant of disease—the result of shattered nerves? Nay, rather the principle of woe itself, the fountain head of all sorrow co-existent with man . . . and woe doth he bring with him into the world, even thyself, dark one, terrible one, causeless, unbegotten, without a father. . . . How sentient is the poor human creature of thy neighbourhood! how instinctively aware that the flood gates of horror may be cast open and the black stream engulf him for ever and ever.



"What ails you my child?" said a mother to her son, as he lay on a couch under the influence of the dreadful one; "what ails you? you seem afraid!"

*Boy.*—And so I am; a dreadful fear is upon me.

*Mother.*—But of what? There is no one can harm you; of what are you apprehensive?

*Boy.*—Of nothing that I can express; I know not what I am afraid of, but afraid I am.

*Mother.*—Perhaps you see sights and visions. . . .

*Boy.*—. . . Mine is a dread of I know not what, and there the horror lies.

*Mother.*—Your forehead is cool and your speech collected. Do you know where you are?

*Boy.*—I know where I am and I see things just as they are . . . and that there is no ground for being afraid. I am, moreover, quite cool and feel no pain. . . ."

\* \* \* \* \*

Time goes on, and, on a walking tour, he meets a learned stranger at an inn who makes certain movements and touches, by obsession, when certain ideas are broached, or rise by association, during conversation. *E.g.*, he suddenly rises from his chair, walks to the mantel-piece, is motionless for a while, then raises his hand, touches the mantel-piece, and returns to his seat. Or he furtively touches a glass or a fork on the table. Or (meeting in it certain expressions like his own) he dashes the newspaper he is reading to the ground, and stoops to pick it up, moving his forefinger along the floor and slightly scratching it with his nail. Whereupon, "'Do you hope, sir,' said I, 'by that ceremony with the finger to preserve yourself from the evil chance?' The stranger started." . . .

The stranger—reserved, learned, wealthy—invites the wanderer to his home, where he touches objects when certain ideas are broached or recur—*e.g.*, when "the dark hour" is mentioned—in order to stay the evil chance: and admits that he quakes at some *ideas*.

Then he tells the story of his life.—His grandfather a prosperous country gentleman, who died of apoplexy. His father, the only child, and born after many years of his parents' wedlock, and to a good fortune and comfortable outward surroundings; yet often a curser of his fate. The reciter himself, a posthumous child, and prematurely born owing to his mother's shock on the sudden death of his

father by accident. He warns that his life has been one of wild imaginings and strange sensations, that he was born with excessive sensibility which has been his bane. No one is fortunate unless he is happy; but "no sooner has my imagination raised up an image of pleasure, than it is sure to conjure up one of distress and gloom; these two antagonistic ideas instantly commence a struggle in my mind, and the gloomy one generally, I may say invariably, prevails. How is it possible I should be a happy man?

It has invariably been so with me from the earliest period that I can remember; the first playthings that were given me caused me for a few minutes excessive pleasure; they were pretty and glittering; presently, however, I became anxious and perplexed, I wished to know their history, how they were made, and what of — were the materials precious?" . . . and soon the playthings were broken "in an attempt to discover what they were made of.

When I was eight years of age my uncle . . . sent me a pair of Norway hawks. . . Oh, how rejoiced was I with the present which had been made me . . . I would have a house of hawks; yes, that I would—but—and here came the unpleasant idea—suppose they were to fly away, how very annoying! Ah, but, said hope, there's little fear of that, feed them well and they will never fly away . . . so sunshine triumphed for a little time. Then the strangest of all doubts came into my head; I doubted the legality of my tenure of these hawks; how did I come by them? Why, my uncle gave them to me, but how did they come into his possession? what right had he to them? after all, they might not be his to give.—I passed a sleepless night. The next morning I found the man who brought them. 'How came my uncle by these hawks?' I anxiously inquired.—'They were sent to him!' . . . 'And who sent them?'—'I don't know.' Nor could his uncle have satisfied him . . . it is true he could tell who sent him the hawks, but how was he to know how the hawks came into the possession of those who sent them to him, and by what right they possessed them or the parents of the hawks . . . "and I believe no title would have satisfied me that did not extend up to the time of the first hawk, that is, prior to Adam, and could I have obtained such a title, I make no doubt that, young as I was, I should have suspected that it was full of flaws. Disgusted with the hawks, and no wonder, seeing all the disquietude they had caused me; I soon totally

neglected the poor birds. . . . My uncle soon sent me a fine pony ; at first I was charmed with the pony, soon, however, the same kind of thoughts arose which had disgusted me on a former occasion. How did my uncle become possessed of the pony ? This question I asked him the first time I saw him. Oh, he had bought it of a gypsy, that I might learn to ride on it. A gypsy ; I had heard that gypsies were great thieves, and I instantly began to fear that the gypsy had stolen the pony. . . . I instantly ceased to set any value upon the pony. . . . Had I looked upon my title as secure, I should have prized it so much that I should scarcely have mounted it for fear of injuring the animal ; but now, not caring a straw for it, I rode it most unmercifully" . . . but once, as he rode it furiously, the pony flung him ; and it was many months before he recovered from the desperate contusions received.

His mother falls ill, the thought that he might possibly lose her rushes into his mind for the first time, "it was terrible and caused me unspeakable misery, I may say horror. . . . I rested neither day nor night, but roamed about the house like one distracted. Suddenly I found myself doing that which even at the time struck me as being highly singular. I found myself touching particular objects that were near me, and to which my fingers seemed to be attracted by an irresistible impulse. It was now the table or the chair that I was compelled to touch ; now the bell-rope ; now the handle of the door ; now I would touch the wall, and the next moment stooping down, I would place the point of my finger upon the floor : and so I continued to do day after day ; frequently I would struggle to resist the impulse, but invariably in vain. I have even rushed away from the object, but I was sure to return, the impulse was too strong to be resisted : I quickly hurried back, compelled by the feeling within me to touch the object. Now, I need not tell you that what impelled me to these actions was the desire to prevent my mother's death ; whenever I touched any particular object, it was with the view of baffling the evil chance, as you would call it—in this instance my mother's death.

A favourable crisis occurred in my mother's complaint, and she recovered ; this crisis took place about 6 a.m. ; almost simultaneously with it there happened to myself a rather remarkable circumstance connected with the nervous feeling which was rioting in my system. I was lying in bed

in a kind of uneasy doze, the only kind of rest which my anxiety, on account of my mother, permitted me to take, when all at once I sprang up as if electrified, the mysterious impulse was upon me, and it urged me to go without delay, and climb a stately elm behind the house, and touch the topmost branch ; otherwise—you know the rest—the evil chance would prevail. Accustomed for some time as I had been, under this impulse, to perform extravagant actions, I confess that the difficulty and peril of such a feat startled me ; I reasoned against the feeling, and strove more strenuously than I had ever done before ; I even made a solemn vow not to give way to the temptation, but I believe nothing less than chains, and those strong ones, could have restrained me. The demoniac influence, for I can call it nothing else, at length prevailed ; it compelled me to rise, to dress myself, to descend the stairs, to unbolt the door, and to go forth ; it drove me to the foot of the tree, and it compelled me to climb the trunk ; this was a tremendous task, and I only accomplished it after repeated falls and trials. When I had got among the branches . . . the ascent was not so difficult. . . . As I approached the top, however, the difficulty became greater, likewise the danger ; but I was a light boy, and almost as nimble as a squirrel, and, moreover, the nervous feeling was within me, impelling me upward. It was only by means of a spring, however, that I was enabled to reach the top of the tree ; I sprang, touched the top of the tree, and fell a distance of at least twenty feet, amongst the branches ; had I fallen to the bottom I must have been killed, but I fell into the middle of the tree, and presently found myself astride upon one of the boughs ; scratched and bruised all over, I reached the ground, and regained my chamber unobserved ; I flung myself on my bed quite exhausted ; presently they came to tell me my mother was better—they found me in the state which I have described, and in a fever besides. The favourable crisis must have occurred just about the time that I performed the magic touch ; it certainly was a curious coincidence, yet I was not weak enough, even though a child, to suppose that I had baffled the evil chance by my daring feat.

Indeed, all the time that I was performing these strange feats, I knew them to be highly absurd, yet the impulse to perform them was irresistible—a mysterious dread hanging over me till I had given way to it ; even at that early period I frequently used to reason within myself as to what could be

the cause of my propensity to touch, but of course I could come to no satisfactory conclusion respecting it; being heartily ashamed of the practice, I never spoke of it to any one, and was at all times highly solicitous that no one should observe my weakness."

Living with his mother in the greatest retirement in the country, pursuing studies under tutors, roaming the woods and green lanes, occasionally fishing or hunting; and yet not happy, for a continual dread of his mother's death overshadowed his mind;—time went on until he had come of age. Then his uncle takes him in hand, introduces him to town life and gaieties, and he becomes "moderately dissipated." And so it goes on for four years, until one morning, with a very serious look, his uncle announces to him "your mother is very ill." I staggered, and touched the nearest object to me; nothing was said for two or three minutes, and then my uncle put his lips to my ear and whispered something. I fell down senseless. My mother was —. I remember nothing for a long time—for two years I was out of my mind; at the end of this time I recovered, or partly so."

He now travels abroad for several years, regains tranquillity of mind, returns home, is kindly received by his uncle, lives for a while a life of fashionable dissipation. Tiring of this, he retreats to his estate in the country, where, for at least ten years, he passes a regular country life, not without some society and occupation of his time, and is seldom or never visited by the magic impulse. But finally,

"I started out of bed one morning in a fit of horror, exclaiming, 'Mercy, mercy! what will become of me. I am afraid I shall go mad. I have lived thirty-five years and upwards without doing anything; shall I pass through life in this manner? Horror!' And then in rapid succession I touched three different objects."

He determines to set about something; feels a craving to distinguish himself; takes it as intended to rouse his undiscovered latent powers; these he seeks to discover by trying many studies; by accident he finds he has a ready pen and teeming imagination, and becomes an author. His first book appears.

"The public were delighted with it, but what were my feelings? Anything, alas! but those of delight . . . my perverse imagination began to conceive a thousand chimerical doubts; forthwith I sat down to analyse it; . . . to be brief,

I discovered a thousand faults in my work, which neither public nor critics discovered. However, I was beginning to get over this misery, and to forgive my work all its imperfections, when—and I shake when I mention it—the same kind of idea which perplexed me with regard to the hawks and the gipsy pony rushed into my mind, and I forthwith commenced touching the objects around me, in order to baffle the evil chance, as you call it; it was neither more nor less than a doubt of the legality of my claim to the thoughts, expressions and situations contained in the book; that is to all that constituted the book. How did I get them? How did they come into my mind? Did I invent them? Did they originate with myself? Are they my own, or are they some other body's? You see into what difficulty I had got; I won't trouble you by relating all that I endured at that time, but will merely say that after eating my own heart, as the Italians say, and touching every object that came in my way for six months, I . . . flung . . . the copy of my book which I possessed, into the fire, and began another.

But it was all in vain; I laboured at this other, finished it, and gave it to the world; and no sooner had I done so, than the same thought was busy in my brain, poisoning all the pleasure which I should otherwise have derived from my work. How did I get all the matter which composed it? Out of my own mind, unquestionably; but how did it come there—was it the indigenous growth of the mind? And then I would sit and ponder over the various scenes and adventures in my book, endeavouring to ascertain how I came originally to devise them, and by dint of reflecting I remembered that to a single word in conversation, or some simple accident in a street, or on a road, I was indebted for some of the happiest portions of my work; they were but tiny seeds, it is true, which in the soil of my imagination had subsequently become stately trees, but I reflected that without them no stately trees had been produced. . . . Thus a dead fly was in my phial, poisoning all the pleasure which I should otherwise have derived from the result of my brain sweat. . . . But, not to tire you, it fared with my second work as did with my first; I flung it aside, and in order to forget it I began a third, on which I am now occupied; but the difficulty of writing it is immense, my extreme desire to be original sadly cramping the powers of my mind; my fastidiousness being so great that I invariably reject whatever ideas I do not think to be legitimately my

own. But . . . I am constantly discovering that . . . I am continually producing the same things which other people say or write . . . you will easily conceive the distress which then comes over me. . . .

For some time past I have given up reading almost entirely, owing to the dread which I entertain of lighting upon something similar to what I myself have written. I scarcely ever transgress without having almost instant reason to repent. To-day, when I took up the newspaper, I saw in a speech of — at an agricultural dinner, the very same ideas, and almost the same expressions which I had put into the mouth of an imaginary person of mine, on a widely different occasion; you saw how I dashed the newspaper down—you saw how I touched the floor; the touch was to baffle the evil chance, to prevent the critics detecting any similarity between the speech of — at the agricultural dinner and the speech of my personage. My sensibility on the subject of my writings is so great that sometimes a chance word is sufficient to unman me, I apply it to them in a superstitious sense; for example, when you said some time ago that the dark hour was coming on, I applied it to my works—it appeared to forebode them evil fortune; you saw how I touched, it was to baffle the evil chance; but I do not confine myself to touching when the fear of the evil chance is upon me. To baffle it I occasionally perform actions which must appear highly incomprehensible; I have been known, when riding in company with other people, to leave the direct road, and make a long circuit by a miry lane to the place to which we were going. I have also been seen attempting to ride across a morass, where I had no business whatever, and in which my horse finally sank up to its saddle-girths, and was only extricated by the help of a multitude of hands. I have, of course, frequently been asked the reason of such conduct, to which I have invariably returned no answer, for I scorn duplicity. . . . I merely did these things to avoid the evil chance, impelled by the strange feeling within me. . . . If I touch various objects, and ride into miry places, it is to baffle any mischance befalling me as an author, to prevent my books getting into disrepute;” to prevent anything in my work resembling aught in any other (abridgment W. J. M.) . . .

“Every now and then my reason tells me that these troubles and anxieties of mine are utterly without foundation; that whatever I write is the legitimate growth of my

own mind, and that it is the height of folly to afflict myself at any chance resemblance between my own thoughts and those of other writers . . . ”

Thus far the host; and the narrative now resumes its usual form, Lavengro again taking up the thread of it, speaking in the first person.

“ During the whole night I was acting over the story which I had heard before I went to bed. At about eight o’clock I awoke . . . and whilst dressing I felt an irresistible inclination to touch the bedpost. I finished dressing and left the room, feeling compelled, however, as I left it to touch the lintel of the door. Is it possible, thought I, that from what I have lately heard the long-forgotten influence should have possessed me again? but I will not give way to it; so I hurried downstairs, resisting as I went a certain inclination which I occasionally felt to touch the rail of the bannister. . . . After a stroll of about half-an-hour I returned to the house in high spirits. It is true that once I felt very much inclined to go and touch the leaves of a flowery shrub which I saw at some distance, and had even moved two or three paces towards it; but, bethinking myself, I manfully resisted the temptation. ‘ Begone,’ I exclaimed, ‘ ye sorceries, in which I formerly trusted—begone forever vagaries which I had almost forgotten.’ ”

. . . Lavengro’s parting advice to his host is:—“ Don’t touch, it is a bad habit.” . . . “ I departed; at the distance of twenty yards I turned round suddenly; my friend was just withdrawing his finger from the bar of the gate. ‘ He has been touching,’ said I, as I proceeded on my way; ‘ I wonder what was the evil chance he wished to baffle?’ ”

Some time after these incidents, and after working hard on poor, rough fare, and after having nearly died from the effects of a poisoned cake, Lavengro sits in a dingle, upon a stone, nerveless and hopeless, . . . with head leaning on his hand, and so continuing for a long, long time, until the entire hollow was enveloped in deep shade, and all was gloom and twilight in the lower parts of the dingle. “ And now, once more, I rested my head upon my hand, but almost instantly lifted it again in a kind of fear, and began looking at the objects before me . . . and now I found my right hand grasping convulsively the three fore-fingers of the left, first collectively and then successively, wringing them until the joints cracked; then I became quiet, but not for long. Suddenly I started up, and could scarcely repress the shriek

which was rising to my lips. Was it possible? Yes, all too certain; the evil one was upon me; the inscrutable horror which I had felt in my boyhood had once more taken possession of me. . . . Every moment I felt it gathering force, and making me more wholly its own. What should I do? resist, of course; and I did resist. I grasped, I tore, and strove to fling it from me; but of what avail were my efforts? I could only have got rid of it by getting rid of myself: it was a part of myself, or rather it was all myself. I rushed amongst the trees, and struck at them with my bare fists, and dashed my head against them, but I felt no pain. How could I feel pain with that horror upon me! and then I flung myself on the ground, gnawed the earth and swallowed it; and then I looked round; it was almost total darkness in the dingle, and the darkness added to my horror. I could no longer stay there. . . . My horror increased; what was I to do?—it was of no use fighting against the horror; that I saw; the more I fought against it the stronger it became. What should I do: say my prayers? Ah! why not? So I knelt down under the hedge, and said, 'Our Father;' but that was of no use; and now I could no longer repress cries; the horror was too great to be borne. What should I do: run to the nearest town or village and request the assistance of my fellow-men? No! that I was ashamed to do; notwithstanding the horror was upon me I was ashamed to do that. I knew they would consider me a maniac if I went screaming among them; and I did not wish to be considered a maniac. Moreover, I knew that I was not a maniac, for I possessed all my reasoning powers, only the horror was upon me, the screaming horror! . . . The unutterable fear appeared rather to increase than diminish; and I again uttered wild cries, so loud that I was apprehensive they would be heard. . . . I therefore went deeper into the dingle; I sat down with my back against a thornbush; the thorns entered my flesh; and when I felt them I pressed harder against the bush; I thought the pain of the flesh might in some degree counteract the mental agony; presently I felt them no longer; the power of the mental agony was so great that it was impossible, with that upon me, to feel any pain from the thorns. I continued in this posture a long time undergoing what I cannot describe, and would not attempt if I were able." . . . At last the horror subsides; returns, but is not so wild as before; subsides, comes again, again subsides: at last

Lavengro falls asleep. . . . Next day, he sat thinking of what he had undergone ; "all at once I thought I felt well-known sensations, a cramping of the breast, and a tingling of the soles of the feet—they were what I had felt on the preceding day ; they were the forerunners of the fear. I sat motionless on my stone, the sensations passed away and the fear came not. Darkness was now coming again over the earth ; the dingle was again in deep shade ; I roused the fire . . . and sat for a long time looking on the blaze ; I then went into my tent. I awoke . . . about midnight—it was pitch dark, and there was much fear upon me."

A few days later he is "very much afraid"—afraid of the "evil one" who is "coming upon" him : his fear-fits or horror-seizures being personified, as "the evil one."

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*The Significance of Weismann's Doctrines in Insanity.\** By  
GEORGE R. WILSON, M.D.

I. *General Physiological Considerations.*

"Clearer conceptions of these matters would be reached if, instead of thinking in abstract terms, the physiological processes concerned were brought into the foreground."† From this counsel which Mr. Spencer gave—counsel which disputants have been slow to follow—towards the end of the unsatisfactory controversy which succeeded the translation into English of Weismann's essays, we shall depart as slightly as possible. Yet at the outset we must deal with "abstract terms," in attempting to define the real issue which Weismann has raised ; even if, in so dealing with them, I do but demonstrate how much wiser it would be to avoid them.

The controversy, so far as I have been able to follow it, concerns itself with the possibility of the organic transmission of so-called "acquired characters." Weismann was the first to insist upon the distinction between the "hereditary parts" and the "acquired parts" of the organism. Our first business then must be to try to discover the physiological differences which underlie this supposed distinction, and, having done so, I think we shall find it impossible to recognise it as a physiological category at all, and shall be

\* Read at the Annual Meeting of the Medico-Psychological Association, 1896.

† *Contemporary Review*, May, 1893.

compelled to admit that the real issue which Weismann's studies has raised has been greatly confused, by his having regarded a fruit of an error in his logic as a real physiological distinction.

This distinction between "inherited parts" and "acquired parts" is not made by Weismann alone, but has been endorsed, more or less explicitly, by Wallace, Romanes, Poulton, Lankester, Ball,\* even Spencer, and others. And these acquired characters have to bear the whole brunt of the battle. By one side they are rejected as characters merely acquired, making no contribution to the development of the race, and scarcely to be regarded as part of the person. By the other side they are exalted to the first rank as characters which mark in every generation its advance upon the last. Now, to my mind, the terms imply a distinction which does not exist. It is (to use a simile which embodies a similar misconception) like the distinction between real estate and personal estate. For as there is not really an intrinsic difference between real estate and personal estate, so there is no organic difference between inherited structures and acquired structures.

The difficulty has arisen from our careless use of such terms as "heredity" and "inherited." Having borrowed the terms from civil authorities, scientists have used "inherited" in its civil sense, and speak of structures as being passed on from generation to generation. Such inheritance does not occur in organisms. That baldness which someone "inherits from his mother's side" is not his mother's baldness; the hairs which are not, are not the same hairs whose loss his mother deplored. Structures are not inherited in the sense in which property is. And if the term inheritance makes confusion we ought to employ some other—a term which will signify reappearance, or rather resemblance, and not one which implies actual transference of structure.

It will make our conceptions of this problem clearer if we keep in mind that "Heredity" is an abstract term, and does not describe anything which ought to have a place in a physiology of the organism. Heredity is not a structure; it has no material form. It is not a force (though we speak as if it were); it has no molecular motion. And nothing may be assumed to be a factor in physiology that is not

\* That unusually convenient phrase of Mr. Ball's, "use inheritance," and indeed his whole book, *The Effects of Use and Disuse*, exemplify very well the futility of attempting to make this distinction clear.

either a structure or a force. Heredity is a product of logic, a principle, or a law. And the law reads thus: *offspring resembles parent*. Brought nearer to physiology, the law of heredity is that germs of the same race, developing under the same conditions, manifest the same differentiations. The inference, therefore, for physiology, is that germs of the same race are of similar constitution, and the problem for physiology is to explain this similarity.

We can now see, I think, that the distinction between inherited and acquired structures is not physiological. Every organism inherits from its parent, or, more correctly, begins as, a fertilised ovum—nothing more. The adult characters, in which an organism resembles its parent or its ancestor, are differentiations wrought out in structure as the result of reaction to environmental conditions. So also are acquired structures so called. They too are adult differentiations of the original germ, the results of physiological reactions. And all the difference, so far as I can see, between structures classed as *hereditary* and those which are called *acquired* is that the former are physiological reactions to familiar and usual environmental conditions, while "acquired" structures are reactions to new or unusual conditions. We may take examples of this distinction from cerebral physiology, as being pertinent to the special study which we affect, and as illustrating sufficiently the same distinction, as it is supposed to hold good as regards tissues other than nervous.

In mental life, or, in another regard, in cerebral development, a class of differentiations has been insisted upon which are supposed to specially typify structures which are the products of exercise and use. Weismann's essay on Music elaborates this point. Exercise and habit, purposeful practice, and the intelligent pursuit of all branches of music, if persistently persevered in, lead to musical skill. Musical skill then is an acquired character. As such it is to be distinguished from the mental predispositions—interest in sound and in sound-production which made it possible; and such predispositions are presumed to have a physical basis—cortical differentiations, implicitly assumed to exist *ab ovo*, which are "inherited parts." A little examination will show that this is not a physiological distinction. Stated generally, we may say that the basis of musical skill is a co-ordinate differentiation in the musical centres—auditory and motor primarily, but also in the cells and fibres which represent imagination, feeling, the sense of harmony, and musical

composition. Now if we trace a musician's development we may point out how, at every stage, he was *acquiring* a new musical idea and a new technical power. And so, working backwards, we may whittle away his "characters" until we regard him *in utero* as an organism with, amongst others, the undifferentiated centres for hearing and for moving. But why stop there? A few months previously he had no cortical centres at all. They were "acquired" in his latter months *in utero* as reactions to physiological conditions.

Or again, take the function of speech. Is that inherited or is it acquired? Weismann's answer I think would be that, in so far as speech is a function attained by exercise and use, it falls into the class of acquired characters. But he would probably assume that there were certain hereditary predispositions, or inherited parts, which made the acquisition of speech possible. We may at once admit that as the parent was predisposed to speech so is the offspring. And, in that sense, there is a hereditary predisposition—a predisposition recurring in successive generations. But we may not let pass the implication conveyed in the term inherited or hereditary parts. It is physiology that is wanted, and in the physiology of speech development we shall find it inadmissible to distinguish between acquired structures and inherited structures. Following the same course as in our summary analysis of musical skill, we may trace back the development of speech to the infant's early cries. All of speech that is learned in after life we concur in calling acquired. But why draw the line at all? The simplest mode of speech is reflex speech excited by feeling. A pin prick on the buttock is followed by a cry. Is the nerve-path from the buttock to the cortex and onwards to the vocal cords "inherited"? Surely not. A few months previously there was no buttock, no cortex, no vocal cord. The whole of the speech mechanism has been "acquired" *in utero* as a result of physiological conditions. And in that sense, the only sense admissible in physiology, all differentiations, from the first subdivision of the ovum onwards, are acquired. There is no organ, no structure, which has been differentiated otherwise than by the growth and development of cells, in a nutritive medium, and reaching to mechanical and other excitation. The process which underlies a singer's attainment of great technical skill is in the same physiological class as the process by which the embryo attains to a

group of undifferentiated nerve cells ultimately destined to become Broca's convolution.

If we allow that the distinction between acquired and inherited parts is impossible, the issue which Weismann has raised becomes at once wider and simpler. We revert to the physiological statement of the law of heredity: germs of the same species, developing under constant conditions, manifest similar differentiations. The inference is that germs of the same species are similarly constituted. We wish to know how that similarity in the constitution of the germ-plasm is maintained. And, in particular, we wish to know if developments in the individual life have a specific relation to the individual's germ-cells—the germ-cells which are destined to become the beginnings of the next generation. Do these functions which are being developed in the organism from the beginning of its existence and onwards, contribute in kind to his reproductive function? Is there a specific relation, for example, between the ova in a woman's ovary and her cortex, of such a kind that developments in her cortex contribute to analogous developments in the constitution of her ova?

Weismann's answer to these questions is not ambiguous. In a continuous line, he tells us, the germ-plasm stretches through all the generations. The germ of the parent, early in development, is divided, and from that division the germ of the offspring is derived. And so throughout the ages there is continuity of the germ-plasm. That no one will deny. All life is continuous. In every organism, Weismann points out, we must recognise two kinds of substance—the substance of the body-cells, the somato-plasm, and the substance of the germ-cells, the germ-plasm. This also we may accept unconditionally. So far as I have stated it, the distinction between somato-plasm and germ-plasm may be taken as a convenient one for controversial purposes. Germ-plasm is our name for the *essential substance* of ova and of spermatozoa. All the rest of the organism is somato-plasm. But Weismann means much more than that. He again enters the sphere of physiology, and at that point we must begin to hesitate to follow his distinction. The somato-plasm, he says, is amenable to environmental conditions, and differentiates into the adult parts. The germ-plasm, on the other hand, is hid away in physiological conclusion, and remains unchanged and undifferentiated until such time as germination occurs, when it manifests a differentiation

characteristic of itself, and out of all relation to the differentiation of body-cells.

Weismann's "continuity of the germ-plasm" we may then fairly describe as "physiological isolation of the germ-plasm," and, so expounded, his theory must raise strong opposition in our minds. We are asked to believe that, while brain changes are related to changes in the sense-organs, to changes in muscle, to changes in glands, to changes in the blood and elsewhere; and while every other form of tissue has similar physiological reactions and interactions, there is one kind of tissue which is the exception. The ova and the spermatozoa—or rather the germ-plasm, which is their essential substance—have no specific physiological relation with the other tissues.

Weismann, however, qualifies the statement of the absolute isolation of the germ-plasm by an admission which will, I think, satisfy all the demands of physiologists who are not pledged to his theory of hypothetical factors in development. "I am compelled to admit," he says,\* "that it is conceivable that organisms may exert a modifying influence upon their germ-cells, and even that such a process is to a certain extent inevitable. The nutrition and growth of the individual must exercise some influence upon its germ-cells; but in the first place this influence must be extremely slight, and in the second place it cannot act in the manner in which it is usually assumed that it takes place. Any change produced will result from the reaction of the germ-cell upon changes of nutrition caused by alteration in growth at the periphery, leading to some change in the size, number, or arrangement of its molecular units. In the present state of our knowledge there is reason for doubting whether such reaction can occur at all; but if it can take place, at all events, the quality of the change in the germ-plasm can have nothing to do with the quality of the acquired character, but only with the way in which the general nutrition is influenced by the latter."

To physiologists, who hold no brief for a theory of development based upon a hypothesis of special agents in the tissues which determine their differentiations, this admission to which Weismann is "compelled" must seem very conclusive. He admits a "nutritive" relation between somatoplasm and germ-plasm, and it leads to "some change in the

\* *Essays*, Vol. i, p. 172, *et seq*

size, number, or arrangement of its molecular units." All that we know of nutritive processes teaches us to expect characteristic changes in the molecular constitution of tissues according to the nature of the nutritive plasma or nutritive forces. Probably no one will deny that the nutritive effect on the other tissues of cerebral metabolism is different in kind from the effect of metabolism in muscle, in bone-marrow, or in thyroid gland. And it has at least not been disproved that the nutritive effect upon the germ-plasm of somatic changes is of a kind which is characteristic of these changes. For example, the growth of bone in adolescence may quite reasonably be held to affect the nutrition of the germ-cells specifically. The enormous bone-metabolism must make a great contribution to the nutritive plasma of the germ-cells, and it may be of such a kind as to alter their molecular constitution in the direction of a predisposition to bone-formation. Similarly, cortical developments may, either materially or dynamically, effect a nutritive change in the germ-plasm, which influences its molecular constitution in favour of nerve-plastic "predispositions." Such an influence must of course be "extremely slight." Nor can we suppose it to be very refined. But still it seems not improbable that, in general, somatic changes of a nervous kind contribute to the molecular constitution of the germ-plasm as above indicated. Having regard to all the familiar correlations of the reproductive function, we may affirm that, whether or not somatic changes influence the germ, germ-changes certainly influence the soma. But here again it may be said that these varied manifestations are coincidences, not correlations. But, granting that they are correlations, we are still at a loss. Take a single concrete example, such as an access of poetical excitement in adolescence. Is the cortical basis of adolescent poetry functionally related to the germ-plasm? Weismann, I think, would reply in the negative. All the kind of relation which such developments imply is a relation between the various somatic tissues. The correlation, if it exists, is between the cortical mechanisms and the lumbar mechanisms, and, through them perhaps, with the reproductive organs. But we have still to prove that the relation extends actually to the germ-plasm, the essential substance of the ova and spermatozoa. Such considerations, I think it will be admitted, show the hopelessness of attempting to solve the problem which has been raised by phenomenal demonstration. All

that we can hope for at present is to perceive more clearly what it is that requires explanation, what the real problem is.

## II. *Special Physiological Considerations relative to the Development of Insanity.*

Still persisting in our attempt to define the issue physiologically, our next consideration must be to determine the physiological content in what we describe as insanity.

Omitting reference to the environmental factor, we may, in biological terms, describe the organic factors in insanity as (1) Arrest of Development, (2) Excessive Individual Variation, and (3) Defective Regeneration. Of these factors, one may predominate over another in any given case or in any given mental malady.

(1.) *Arrest of Cortical Development.*—Having regard to the development of the various tissues in ontogeny, observing, as we may, a daily addition of layer upon layer of proliferating cells to form the embryonic organs, we may, I think, form some conception of an initial force, or an initial agent, which determines these remarkably adept cell-activities. It matters not whether we think of such a force in terms of Weismann's determinants, Naegeli's idioplasm, Spencer's physiological units, or of any of the very manifold hypothetical agents in theories of development. The fact remains that germ-plasm, to develop with this ordered rapidity, possesses a unique and characteristic molecular activity. "Why," says Weismann,\* "does the segmentation of one half of certain eggs proceed twice as rapidly as that of the other half? Why do the cells of the ectoderm divide so much more quickly than those of the endoderm? Why does not only the rate but also the number of cells produced (so far as we can follow them) always remain the same? Why does the multiplication of cells in every part of the blastoderm take place with the exact amount of energy and rapidity necessary to produce the various elevations, folds, invaginations, etc., in which the different organs and tissues have their origin, and from which finally the organism itself arises? There can be no doubt that the causes of all these phenomena lie within the cells themselves, that in the ovum and the cells that are immediately derived from it there exists a tendency towards a determined (I might almost say specific) mode and energy of cell-multiplication."

\* *Essays*, Vol. i, p. 30,

This developmental momentum, if the phrase may pass, which determines the "mode and energy of cell-multiplication," varies in different species, in different individuals, and in different tissues. Its existence is a condition of normal development, its failure signifies arrest. In other words, granting normal environmental conditions, arrest of an organ implies a failure in the initial activity of the ovum. Now arrest of an organ as a rule implies a numerical deficiency in cellular elements. An arrested organ is one in which cell-multiplication has failed. But the arrest which we know to be a factor in insanity is not a numerical failing, but a qualitative deficiency in the cells. I believe we do not realise the full significance of the unique nature of cortical development and of cortical arrest. Certainly I think it escapes Weismann. Yet we cannot regard it, so it seems to me, as of less than supreme significance, whether we are interested in the physiology or the teleology of the nervous system.

The following facts, quoted chiefly from Minot, indicate the kind of consideration which demands an important place in our conception of cortical physiology: Cortical cells are developed from *neuroblasts* which are the transformed *germinating-cells* of the medullary wall. "The number of the germinating cells is very large in the human embryo at four weeks." Most of them become neuroblasts. Brain growth subsequently depends on the growth of individual cells rather than on cell-proliferation. The first cell-process, the axis-cylinder process, of pyramidal cells is developed about the second month. This is accompanied by a marked diminution of the cell-body. At  $5\frac{1}{2}$  months the cell begins to grow. The nucleus enlarges, as well as the "court" of protoplasm round it. At about the sixth month the cell pushes out into a process at the apex, and also develops short, simple, lateral processes or dendrites. The cell-character then, at the seventh month, is practically the same as at birth. At birth cells may be found in various stages of development, but the most advanced of them differ from cells of the seventh month only in size. Subsequently there is increase of the dendrites or lateral processes, with complex branchings, which form the nerve-fibre plexus.

Granting the possibility of error in certain details, or of new observations which may modify Minot's account of the embryology of the nerve-cell in unimportant respects, the general facts which remain are enough. It would be diffi-

cult to cite another notably plastic system in which the numerical development of its cellular elements is complete at or about the fourth week of intra-uterine life. Even supposing the date to be inexact, the remarkable fact still remains that cell-proliferation in the cortex has ceased before the stage of extra-uterine stimulation and reaction has begun.

The problem which the Weismann controversy has raised may be stated in the question, Do the structural differentiations in somatic development have a direct and specific relation to germ-development? And my present point is that the physiological conditions to be considered in the case of cortical development are not the same as those of other somatic developments. In other tissues, reduplication marks the acme of molecular activity in the cell. At all events, to our gross perception, cell-multiplication, even when it follows exhaustion or barely forestalls degeneration, seems to be a process implying a very much greater activity than any other cell-development. Cell-proliferation, then, may be conceived to mark a stage of unusual importance in the hypothetical relation of somatic development to germ-development. But such cell-proliferation of the nerve-cells in the cortex either as the result of normal or of abnormal processes is unknown in extra-uterine life. If, then, there is a specific contribution from cortical development to germ-development it is of a kind which we may not assume to be similar to any contribution which we may suppose to come from the other systems.

As cortical development is of a unique kind, so also is cortical arrest. That form of arrest which Bevan Lewis has taught us to recognise in epileptic idiocy is but an example of what we may safely assume to be present in all immature and infertile brains. Development, in the cortex, signifies an elaboration of cell-connections, a multiplication of the relational processes of cells. Bevan Lewis has taught us to recognise in the paucity of these processes in idiotic cells an arrest in the development of their relational function. The inference is that they were deficient in that initial activity, that developmental momentum, which was essential to the proper "mode and energy" of mature differentiation.

But arrest does not only occur in idiocy. Logically it must be presumed to occur in all insanities. It represents physiologically what Hughlings Jackson would call the

negative symptom, "the want," in the insane diathesis. The failure in proper control of impulses, the disability which makes it impossible to realise the full consequences of conduct, the lack of complete fellow-feeling, the defective sense of probability—such symptoms as these imply arrest in the cortical elements of the insane. And whether or not we regard the "dendrites" as the essential structures in the mechanism of mature character, such an arrest is a failure of the cortical cells to establish a complete relational function. And what I wish chiefly to emphasise is that, whatever it may be, such arrest is not due, so far as we know, to a deficiency in the *number* of the cortical elements.

(2.) *Excessive Variation*.—The physiology, or the pathology of excessive variation, follows from what has been said concerning arrest.

I only use the term excessive variation in order to bring the subject into the line of the biological point of view. Clinically we know it as eccentricity, excess, extravagance, or perverse genius. It is recognisable in all insane predisposition—an excess of unrelated development, which contributes largely to the ill-balance of the patient's mind. In experience the excessive function not only preponderates over the other functions, but usurps them. A perverted musical genius hears when others see, when others taste, when others smell. To him all feeling has its musical interpretation; all thought and all imagination are explicable in musical terms. The basis of so "hypertrophied" an organ of the mind we must conceive of as chiefly a specialised differentiation of individual cells. Granting, to begin with, a preponderance of initial activity in the auditory centres, their cells and fibres, catching every movement within ear-shot, have pushed hither and thither after a plan of ever-increasing complexity. Gradually, the main paths differentiated, new avenues of relation have been established throughout the whole mechanisms of associated centres.

So far as we know, an excessive development of such a kind does not imply an excessive cell-proliferation. The brain at birth, as it seems to me, must be regarded as an organ which has a definite number of elements capable of functional activity. Excess of this function, then, or of that, depends, not upon an addition to the number of elements in the representative area, but upon the initial activity (developmental momentum) of the elements within

that area. The greater the activity of the cells the more far-reaching will be their processes, and the more penetrating will be the movements which emanate from them ; the more complex will be their associations, the larger will be the number of centres which are brought into relation with, and made subservient to, them.

In considering, therefore, the probability of a specific contribution from an excessive development of, say, musical centres to the development of the germ, we have to inquire what kind of influence it would be which would reach the germ-cells from cortical centres whose excess of development was not a numerical excess but rather a dynamical excess.

(3.) *Defective Regeneration.*—In this connection again it is of the first importance to note that the conditions of regeneration in cortical cells and fibres are not similar to those of regeneration in the other tissues. In the cortical areas the factor which we call the trophic influence of nerve-impulses has become supreme. And if it be objected that the difference is only one of degree, I would reply that the difference in degree has become so great as to constitute a difference in kind.

In somatic tissues other than nervous, reparation of exhausted cells or, more correctly, regeneration of degenerated cells, is believed to be by cell-multiplication. In this regard physiological regeneration closely resembles the regeneration of lost parts which affords biologists so much food for thought. Except under extraordinary conditions,\* however, such regeneration does not occur in the cortex. The recovery of function following its abeyance in slight exhaustion is by the gradual anabolic metabolism under the ordinary nutritive conditions. But Foster, whose account of cerebral physiology is pre-eminently suggestive, points out† that the nerve-impulses which reach the cells are the chief factor in determining their metabolism. The first condition of activity in a cortical cell is that it shall be receiving a constant succession of mild stimuli from other cells. No matter how much good blood a centre is bathed in, the first condition of anabolic, as of katabolic metabolism, is that it shall be in relation with other centres.

\* V. Voit, however, observed restitution of a part of a pigeon's brain which had been removed. Five months later, a nervous mass had been reproduced, consisting of medullated nerve-fibres and nerve-cells. (Landois and Stirling.)

† *Text-book of Physiology*, § 690.

And, as I take it, the trophic connections of the highest centres do not follow so simple a plan as in the lower levels of the nervous system. Every centre in the cortex is probably to some extent trophic for every other centre. And, in particular, the great sensory avenues—the auditory, the visual, and the tactual—are the great sources of trophic influence. Simple regeneration, then, seems to depend upon the accessibility of the cell to these trophic influences, that is, upon the permeability of its relational parts. We further have to consider what in the cortex corresponds to the regeneration of lost parts. All pathologists lead us to believe that a very large number of the cortical cells in the insane are permanently lost by degeneration. The extent of such loss probably indicates an original predisposition which characterises the insane as compared with the healthy. Now, recovery of cortical function, following permanent degeneration, is not by the process of cell-proliferation as in other somatic tissues, but by the establishment of new cortical connections. Cells which were lying fallow, probably in the "embryonic" stage of differentiation, or cells which hitherto have chiefly subserved another function, take up the function of the lost cells. In order to such recovery of function, plasticity in cells is of the first importance. I mean a readiness to differentiate in response to the stimuli which inaugurate their new relational function. So that we may say that regeneration following permanent loss—whether by a gross lesion or by degeneration—depends upon the same condition as simple regeneration following mild exhaustion. That condition is the accessibility of the cell to stimuli.

Defective regeneration, then, may be held to depend originally upon an incapacity of cells for trophic stimulation, that is, upon a defect of relational differentiation; or, in loss by degeneration, upon the incapacity of "fallow" cells to take on a relational function. The question, as regards a specific influence of such a defect upon germ-development, can be stated in terms which will recall our previous statements of the problem. Does such a defect in the cortex, which depends upon an inherent incapacity of the cells for relational differentiations, imply a failure of a specific contribution (that is, a contribution of a trophic kind) to the germ-cells so that germ development is predisposed in the direction of failure of cortical regeneration?

### Conclusion.

Obviously the problem which I have tried to state in physiological terms is very abstruse. It will be granted, I think, that it is not capable of phenomenal demonstration. No one expects to demonstrate a mechanism of relation between the cortex and the germ-cell. The solution of the problem must come either by conclusive experiment—and that is well-nigh hopeless—or by logical reasoning.

In the concluding paragraph of his essay on *The Supposed Transmission of Acquired Characters*,\* Weismann says: "If, as I believe, these phenomena can be explained without the Lamarckian principle, we have no right to assume a form of transmission of which we cannot prove the existence. Only if it could be shown that we cannot now or ever dispense with the principle should we be justified in accepting it." But such a statement is a quite inadmissible arrogation to his own biological faith of the right to apply the law of parsimony. On similar terms, Weismann's own theory of development would receive scant courtesy. Any of us might with equal justice say: "I refuse to call in the aid of Weismann's *vis a tergo* to explain the development of the individual so long as I can conceive an explanation which fits with my own particular theory." We have not reached that stage in the development of biology when we can look upon organic processes with ideas so clear that we can intelligently refer them all to one supreme principle or law. All that we can do is to take thought about each and to try to account for every process or phenomenon in such a way that our various explanations of various facts will not be contradictory.

I have endeavoured to show grounds for supposing that the relation between the cortex and the germ, if any, is not the same as that between the other somatic tissues and the germ. From our comparison of the physiological conditions arises a very obvious suggestion (and not all that is obvious is untrue)—that is, that while there may be a material contribution of a specific kind from the other somatic tissues to the germ, that from the cortex is probably a dynamical contribution or it is nothing.

In conclusion I should like to emphasise the importance of a factor in the evolution of the individual which Darwin, Spencer, Weismann, and others touch upon, but which, I think, no one sufficiently emphasises and which some writers

\* Vol. i., p. 461.

all but ignore. That factor is the evolution of environment. It is generally assumed that with the contradiction of our belief in the organic transmission of acquired characters, our hope for the ultimate destiny of the human species is set aside. For example, Ball\* says in his preface, "The sociological importance of the subject has already been insisted on in emphatic terms by Mr. Herbert Spencer, and this importance may be even greater than he imagined.

"Civilisation largely sets aside the harsh but ultimately salutary action of the great law of natural selection without providing an efficient substitute for preventing degeneracy. The substitute on which moralists and legislators rely—if they think on the matter at all—is the cumulative inheritance of the beneficial effects of education, training, habits, institutions, and so forth—the inheritance, in short, of acquired characters, or of the effects of use and disuse. If this substitute is but a broken reed, then the deeper thinkers who gradually teach the teachers of the people, and ultimately even influence the legislators and moralists, must found their systems of morality, and their criticisms of social and political laws and institutions and customs and ideas, on the basis of the Darwinian law rather than on that of Lamarck."

I rather agree with those who, taking human nature as it is, are optimistic enough to think that universal degeneracy is not imminent. If our logic leads us to expect that, so much the worse for our logic. Civilisation is not an affair of yesterday; strong and wise men are still to the fore. It lies with us to explain the survival of the wise and the strong. And the explanation seems to me to be found in great part in the effect on the individual of a constantly evolving environment—taking ordered shape in view of ordered ends. Most important of all, traditional inheritance is within human control, organic inheritance is not. We cannot in the least foresee, much less provide for, the nature of the offspring to be born to us. But we can, almost with exact precision, provide the environment in which the next generation will grow up.

Suppose that histology is our aim. By acquiring pre-eminent skill a man may hope to add to his son's interest in his art. The hope may or may not be delusive. But whether or no his son be a born microscopist, the environment of a fully-equipped laboratory—microtomes, baths, preparations, stains, an expert "boy"—will make him one. With only average ability the son may soon surpass his

\* *The Effects of Use and Disuse.*

father in knowledge and in skill. In all departments of life the same holds good. Conversely, a wise environment may cancel a perverse predisposition. The near relations of lunatics have hoped that the taint may be diluted in their offspring if, before children are born, their life has been well-ordered. The hope may or may not be delusive. But even a considerable predisposition to insanity in a child may be cancelled by a careful upbringing, quite certainly, and so, in virtue of his environment, he may evade his inheritance.

Granted then a good environment—a healthy influence from existing institutions, traditions and customs, public opinion and personal teaching—all that is necessary to insure the future of the species is amenability to the influence of the “not ourselves.” In physiological terms—and to the physiology of the subject we must be faithful to the end—the *summum bonum* of individual development is not a great initial activity in this brain-centre or in that, but rather a general plasticity of cortical structure, a capacity for relational differentiation in any or all of the cerebral organs. Training will do the rest.

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*Heredity in Mental Disease.\** By J. F. BRISCOE, M.R.C.S., F.R.G.S.

Mr. Briscoe gave an account of hereditary influences affecting reproductive processes, entering into details relative to syphilis and temperaments. He held that deviation from a normal standard of mind and body must indirectly affect the reproductive processes. He thereafter traced the life history of a typical neurotic in a series of clinical pictures. Mr. Briscoe illustrated his paper by photographs of a skull which he had brought from East Africa. The skull was also submitted for examination, and was described as having belonged to a child six years of age, to be generally five-eighths of an inch thick, with completely obliterated sutures. The whole was porous (osteoporosis), and the new cancellous tissue of a columnar appearance, and superimposed upon the original bone. Mr. Briscoe was of opinion that it might be useful to compare such a cranium with deformed palates in relation to brain growth. The heredity of direct mental weakness was then discussed, and Mr. Briscoe was of opinion that 90 per cent. of the insane have a heredity of insanity.

\* Abstract of a paper read at the Annual Meeting of the Medico-Psychological Association, London, 1896.

*The Increase of General Paralysis in England and Wales : Its Causation and Significance.\** By R. S. STEWART, M.D., D.P.H. Camb., Deputy Medical Superintendent, Glamorgan County Asylum, Bridgend.

*No Disproportionate Increase of Insanity.*

The increase of the total living insane in England and Wales during the intercensal period 1881-91 was 15.24 per cent., while the corresponding increase of population was only 11.7.

The proportion of the yearly average of admissions to asylums, etc., in which the attack is stated to be the first, *i.e.*, occurring insanity, which was in the five years ending 1882 3.3 per 10,000 of population (1881), rose in the five years ending 1892 to 3.7 per 10,000 (1891).

These two facts at first sight indicate an increase of lunacy out of proportion to the increase of population, but, as is shown in the *Census Returns*, 1891, Vol. iv., p. 75, the first is sufficiently accounted for by the "accumulation" resulting from the diminution of the "discharge" rate (deaths and recoveries) of asylums from 19 per cent. in the decennium 1871-80 to 17.83 in the decennium 1881-90; and the explanation of the second is to be found in a change of public view which manifests itself in an ever-increasing tendency to remove the insane from the "mass of unregistered lunacy" to "official cognisance" (the proportion of the officially known to the total living insane increased from 86.5 per cent. in 1881 to 89.1 in 1891), and in an increasing disposition to widen the limits of certifiable insanity so as to include forms of aberration, for example cases of mere senile enfeeblement, which formerly did not come within the category of lunacy.

*Disproportionate Increase in General Paralysis.*

It appears to be beyond doubt that general paralysis (which constitutes roughly about 9 per cent. of all admissions to establishments in England and Wales) is increasing, and at no small rate. Scattered references to this appear more frequently in recent Annual Reports of the Medical

\* Read at the Annual Meeting of the Medico-Psychological Association, London, 1896.

Superintendents of English County Asylums,\* and, so far as England and Wales are concerned, reliable data are now available in the Annual Reports of the Commissioners in Lunacy for the past fifteen years (1878-92 inclusive). A study of these is very instructive, indicating as they do a tolerably steady disproportionate increase of this type of disease.† Thus the percentage of general paralytics to total admissions has risen from 8 in the five years 1878-82 to 8.6 in 1883-87 and to 8.9 in 1888-92. The disproportion

\* From the collective investigation of Tucker (*Lunacy in Many Lands*, 1887) it would appear that this is also occurring in other countries. This investigation, however, is based only upon the personal opinions of Superintendents unsupported by statistics. To the question addressed to the Superintendents of Asylums: "Has general paralysis increased?" 264 replies were received, in 165 instances in the affirmative, 62.5 per cent., and in 99 in the negative, 37.5 per cent. Arranged according to the country to which they apply the numbers of these answers are as follows:—England, affirmative 33, negative 23; Wales, affirmative 0, negative 3; Scotland, affirmative 5, negative 11; Ireland, affirmative 1, negative 14; France, affirmative 22, negative 6; Germany, affirmative 22, negative 3; Belgium, affirmative 1, negative 4; Netherlands, affirmative 5, negative 1; Denmark, affirmative 2, negative 1; Norway and Sweden, affirmative 3, negative 1; Russia, affirmative 3, negative 3; Italy, affirmative 13, negative 2; Spain, affirmative 2, negative 0; Portugal, affirmative 0, negative 2; Austria, affirmative 8, negative 3; Switzerland, affirmative 3, negative 8; United States of America, affirmative 36, negative 15; Canada, affirmative 6, negative 0. From the foregoing it will be observed that with the exception of six countries—Wales, Scotland, Ireland, Belgium, Portugal, and Switzerland—the prevailing impression indicates an increase of this disease among European and English-speaking races.

Scotland has apparently ceased to be one of the favoured nations, the average percentage of general paralysis as a cause of death, according to the Reports of the Commissioners in Lunacy, being, at least as regards males, a steadily increasing one of late years, as is shown in the following table:—

Average for 31 years ending 1888, males 18.3, females 4.5 per cent.

”	32	”	1889	”	18.5	”	4.7	”
”	33	”	1890	”	18.6	”	4.7	”
”	34	”	1891	”	18.7	”	4.7	”
”	35	”	1892	”	18.8	”	4.7	”
”	36	”	1893	”	19.0	”	4.8	”
”	37	”	1894	”	19.2	”	4.7	”

The increase in the Paris Asylum at Villejuif is shown in the following figures, giving the proportion per cent. of general paralytics to admissions:—1882 13.03; 1883 14.75; 1884 11.00; 1885 14.60; 1886 15.45; 1887 19.50. (Arnaud, *Annales Medico-Psychologiques*, July 1888, p. 86.) A very exhaustive paper by Kraft-Ebing ("Ueber die Zunahme der Progressiven Paralyse, im Hinblick auf die sociologischen Factoren") has been published in *Jahrbücher f. Psychiatrie*, 1895, xiii. Bd., Heft 2 and 3, in which statistics are given that prove beyond question a very largely increased proportion of this disease in Austria, Germany, and Switzerland.

† The total number of general paralytics admitted to establishments in England and Wales during the fifteen years 1878-92 was 18,438, and it is upon the statistics referring to these that this paper is based.

is very manifest when the comparative figures are stated in the following form :—

Percentage increase of average annual admissions of the quinquenniad 1888-92 over the quinquenniad 1878-82 : Total admissions 20·5; admissions less general paralytics 19·3; general paralytics 34·6.

What conclusion, even after making allowance for the possibility of greater certainty of diagnosis,\* can be drawn from the above than this, that general paralysis is increasing at a rate which is out of proportion to that which applies to other forms of insanity?

Thus much having been admitted, the next question that arises is :—Do the statistics contained in the Reports of the Commissioners afford any clue as to the probable causation of this increase? The following bear more or less closely on the inquiry.

#### *Sex Relation.*

The following table represents the proportion of general paralytics per cent. of total admissions for the three quinquenniads under review, distinguishing the sexes :—

TABLE I.—Proportion of General Paralytics per cent. of Total Admissions.

Years.	M.	F.	T.
1878-82	12·8	3·3	8·0
1883-87	14·3	3·1	8·6
1888-92	14·7	3·4	8·9

From this it will be observed that while the increase of the last over the first quinquenniad for both sexes is 0·9, that for females is only 0·1, and for males 1·9. In other words, the increase among men is 19 times greater than among women.†

\* The argument that those who are ultimately responsible for the diagnosis are more adept of late years, and that more cases than formerly are therefore recognised, has very little, if any, weight; the personnel of the higher medical staff of English Asylums has undergone very little change in the period under consideration, and there is no reason to suppose that the diagnostic capacity has altered materially in such a short space of time as fifteen years. Again if diagnostic ability were greater, the increase ought to apply uniformly to all classes of patients, which is not so, as will be seen later on.

† The disproportionate increase among males is brought out when the figures are given in another form. In the first quinquenniad the sex-proportion among admissions was 3·7 males to one female; in the last it was 4·1 males to one female. This is quite contrary to the conclusion arrived at by Kraft Ebing, whose statistics show an increasing proportion of women attacked.

*Social Position.*

Lunatics are, broadly, divided into two groups—the private drawn chiefly from the upper and upper-middle classes, the pauper from the lower-middle and lower classes (the latter, except to a very small extent, not being paupers prior to the onset of the mental affection).

TABLE II.—Percentage of General Paralytics to Total Admissions, distinguishing the Sexes and Social Position.

Years.	Private.			Pauper.		
	M.	F.	T.	M.	F.	T.
1878-82 ... ... ... ... ... ...	9·7	1·5	5·8	13·5	3·6	8·4
1883-87 ... ... ... ... ... ...	11·2	1·2	6·4	14·8	3·5	9·0
1888-92 ... ... ... ... ... ..	12·9	1·1	7·4	15·0	3·7	9·1
Increase or decrease between the first and last quinquenniad ... ... ...	+3·2	-0·4	+1·6	+1·5	-0·1	+0·7

The greatest increase takes place among private males and the next among pauper males,\* while the proportion among female private patients is actually a diminishing one. The increase in male private patients, it is to be noted further, is a steadily progressive one, but as regards pauper males it is a diminishing one. The most striking feature of the accompanying Chart (Chart I., p. 767), in which these various changes are graphically represented, is the very pronounced contrast between the steadily maintained increase in the proportion of male private patients, and the as steadily maintained diminution in the proportion of female private patients.

*Age Relation.*

A comparison of the statistics relating to the age-incidence of general paralysis and of other forms of mental disorder reveals certain very noteworthy and significant facts. Owing to a want of correspondence of age-periods only the last two of the three quinquenniads are available for the purpose of comparison.

\* The very great increase among private males is evidenced by the alteration of the sex-proportion, which in the first quinquenniad was 7·2 males to one female, and in the last 12·5 to one, the corresponding proportion for paupers being 3·5 to one and 3·7 to one.

TABLE showing the ratio (per 10,000) of the yearly average number Wales during five years 1888 to 1892 inclusive to the whole years 1883 to 1887 to the estimated corresponding Population III. General Paralytics; IV. The Proportion (per cent.) of number of Patients admitted, arranged according to ages.

	Under 15 years.			15-19.			20-24.			25-34.			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
Ratio (per 10,000) of all admissions to population	·4	·2	·3	2·8	2·8	2·8	5·9	5·6	5·7	8·3	8·6	8·5	
... 1883-87...	·4	·2	·3	2·6	2·7	2·7	5·8	5·3	5·5	8·1	8·1	8·1	
Increase ... ... ...	·0	·0	·0	·2	·1	·1	·1	·3	·2	·2	·5	·4	
Ratio (per 10,000) of admissions exclusive of general paralytics to popu- lation	·4	·2	·3	2·8	2·8	2·8	5·8	5·6	5·7	7·2	8·3	7·8	
... 1883-87...	·4	·2	·3	2·6	2·6	2·6	5·7	5·2	5·5	7·1	7·7	7·4	
Increase ... ... ...	·0	·0	·0	·2	·2	·2	·1	·4	·2	·1	·6	·4	
Ratio (per 10,000) of general paralytics admitted to popu- lation	... ...	... ...	... ...	·007	·003	·072	·050	·057	1·082	·267	·656		
... 1883-87...	... ...	... ...	... ...	·011	·004	·007	·071	·029	·049	1·000	·270	·620	
Increase+ ... ... ...	... ...	... ...	... ...	... ...	·003	... ...	·001	·021	·008	·082	... ...	·036	
Decrease- ... ... ...	... ...	... ...	... ...	·011	... ...	·004	... ...	... ...	... ...	... ...	·003	... ...	
Proportion (per cent.) of general paralytics to total admissions	... ...	... ...	... ...	... ...	·2	·1	1·2	·9	1·0	13·0	3·1	7·8	
... 1883-87...	... ...	... ...	... ...	... ...	·4	·2	·3	1·2	·6	·9	12·6	3·3	7·7
Increase+ ... ... ...	... ...	... ...	... ...	... ...	... ...	... ...	·3	·1	·4	... ...	·1		
Decrease- ... ... ...	... ...	... ...	... ...	... ...	·4	... ...	·2	... ...	... ...	... ...	·2	... ...	

of: I. All Patients admitted into Asylums, etc., in England and Population at the time of the Census of 1891, and during the five years preceding; II. All Patients admitted exclusive of General Paralytics General Paralytics admitted to the yearly average of the whole

35-44.			45-54.			55-64.			65 and Upwards.			Total.		
M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
11.2	10.5	10.8	11.2	11.4	11.3	11.1	10.0	10.6	11.6	10.2	10.9	5.5	5.5	5.5
10.4	10.1	10.2	10.3	10.1	10.2	10.4	9.2	9.8	9.8	8.4	9.0	5.1	5.0	5.1
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
.8	.4	.6	.9	1.3	1.1	.7	.8	.8	1.8	1.8	1.9	.4	.5	.4
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8.0	9.8	8.9	8.6	10.8	9.7	10.3	9.9	10.0	11.4	10.2	10.8	4.7	5.3	5.0
7.5	9.6	8.6	8.0	9.6	8.8	9.5	9.0	9.2	9.6	8.4	8.9	4.4	4.8	4.6
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
.5	.2	.3	.6	1.2	.9	.8	.9	.8	1.8	1.8	1.9	.3	.5	.4
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3.215	.693	1.923	2.635	.545	1.540	.909	.192	.525	.165	.026	.095	.379	.253	.318
2.849	.575	1.674	2.317	.430	1.329	.933	.165	.524	.210	.037	.114	.336	.216	.274
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
.366	.118	.249	.318	.115	.211	...	.027	.001	...	...	...	.043	.037	.044
...	...	...	...	...	...	.024	...	...	.045	.011	.019	...	...	...
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
28.6	6.7	17.7	23.5	4.8	13.7	8.1	1.9	5.0	1.4	.3	.9	14.	3.4	8.9
27.5	5.7	16.3	22.5	4.3	13.1	9.0	1.8	5.4	2.1	.5	1.3	14.3	3.1	8.6
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1.1	1.0	1.4	1.0	.5	.6	...	.1	...	...	...	...	.4	.3	.3
...	...	...	...	...	...	...	.9	...	.4	.7	.2	.4	...	...

From this table it will be observed that as regards all forms of insanity, exclusive of general paralysis, the total increase of the average annual admissions is 0·4 per 10,000 of population, that up to the age of 44 the increase is generally under that proportion, and that the age-periods beyond 44 are marked by a much greater proportionate increase, one, too, which steadily increases with advancing years. With regard to general paralysis the reverse holds, for in the extremes of the age-periods there is an actual diminution, and it is in what may be regarded as the earlier general-paralysis period that the increase is most pronounced.\* In other words, the race shows a lessening tendency to insanity in the earlier life-periods, but as regards general paralysis the increasing liability shows itself during the earlier years of the general-paralysis age.†

These facts are more clearly brought out by combining the figures for the several age periods. Thus, while the increase for all ages of the average annual admissions of all forms of insanity, excluding general paralysis, of the quinquenniad 1888-92 over 1883-87 is 0·4 per 10,000 of population, the increase for the age-period 15 to 34 is 0·3, from 35 to 44 0·3, from 45 to 54 0·9, and from 55 upwards 2·1; whereas the corresponding figures for general paralysis are respectively 0·018, 0·249, 0·211, and —2·013, the increase for all ages being 0·044.

The accompanying chart shows graphically the changes as regards general paralysis and other forms of mental disorder that have taken place in the five years 1888-92 as compared with the five years 1883-87, that is to say, the increase (per 10,000 of population) of the average annual admissions of general paralysis (interrupted line) and of other forms of insanity (continuous line) of the five years 1888-92 over the five years 1883-87, arranged in five age-groups. The horizontal lines represent the increase for all ages.

\* Mickle, *General Paralysis of the Insane*, second edition, p. 250, gives 33 as the average age at onset of the soldiers under his care.

Arnaud (*Annales Medico-Psychologiques*, July, 1888, p. 86) observes that the mean age of general paralysis is lowered, and that the lowering is related to the greater frequency of the disease.

† Mickle (*op. cit.*) says, "Reading the older literature of the subject one is led to think that formerly general paralysis occurred somewhat later in life, on the average, than is nowadays the case."

Krafft-Ebing (*op. cit.*) gives statistics which point in the same direction.

Calmeil (*De la Paralysie considérée chez les Alienes*, 1826, p. 371) gives the following figures for 45 general paralytics:—Age at onset: Up to 32, 4·4 per cent.; 32 to 40, 31·1 per cent.; 40 to 50, 44·4 per cent.; 50 to 60, 20·0 per cent.

CHART I.

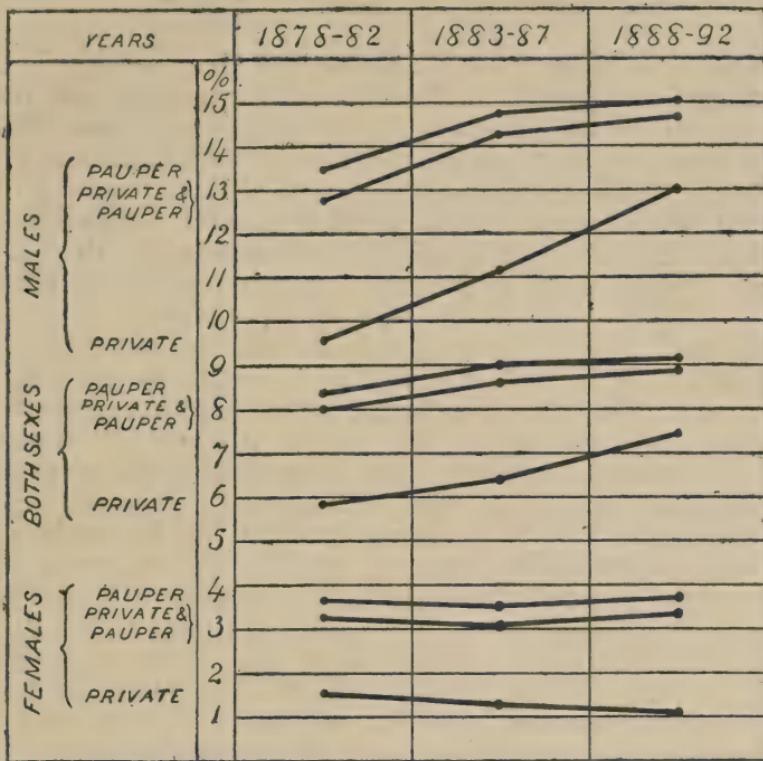
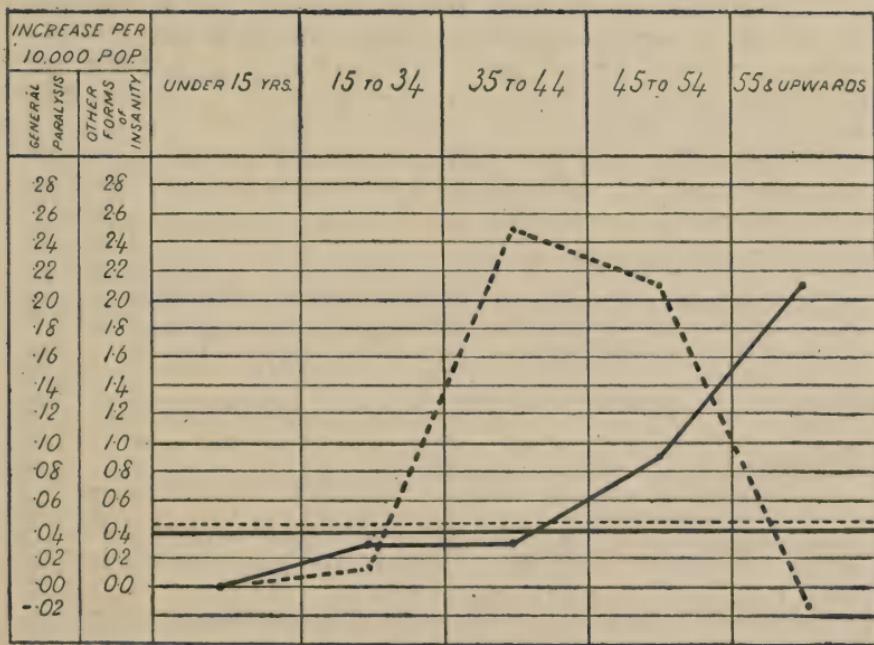


CHART II.



*Marriage Relation.*

TABLE showing the ratio (per 10,000) of the yearly average number (1) of patients exclusive of general paralytics, (2) of general paralytics admitted into asylums, etc., in England and Wales during the five years 1888 to 1892 inclusive to the census population of 1891, and during the five years 1878 to 1882 inclusive to the census population of 1881, arranged according to the condition as to marriage.

	Single.			Married.			Widowed.					
	M.	F.	T.	M.	F.	T.	M.	F.	T.			
Admissions exclusive of General Paralytics	3·7	3·8	3·7	5·7	6·8	6·2	12·3	10·9	11·3			
	3·5	3·5	3·5	5·6	6·4	6·0	10·6	9·5	9·8			
Increase	...	...	...	·2	·3	·2	·1	·4	·2			
General Paralytics, 1888-92	...	·276	·056	·166	1·686	·038	1·028	1·526	·356	·709		
..	1878-82	...	·216	·046	·132	1·382	·033	·854	1·265	·330	·614	
Increase	...	...	...	·060	·010	·034	·304	·005	·174	·261	·026	·095

Contrasting general paralysis with other forms of mental disorder, the order of increase (per 10,000) of the average annual admissions of the five years 1888-92 over the five years 1878-82 in relation to the marriage state, is as follows:—

Admissions, excluding General

Paralytics.

Married Men ... 0·1

Single Men ... 0·2

Single Women ... 0·3

Married Women ... 0·4

Widows ... 1·4

Widowers ... 1·7

General Paralytics.

Married Women ... 0·005

Single Women ... 0·010

Widows ... 0·026

Single Men ... 0·060

Widowers ... 0·261

Married Men ... 0·304

The most striking feature of the foregoing figures is the position occupied by married men, for while the increase of the admissions (other than general paralytics) is least of all pronounced in their case, they most of all are responsible for the increase of general paralysis; in relation to these two groups of mental disorder they occupy the extremes. The extreme position occupied by married women and men in the increase of general paralysis is another very noteworthy point. The increase among single women is twice,

and among widows five times what it is among married women; while as regards men the increase among the widowed is over four, and among the married five times what it is in the single.

*Geographical Distribution.*

The geographical distribution of general paralysis is a subject of much interest as indicating some of its causes and the conditions giving rise to it. The available data, however, are for various reasons by no means complete; nevertheless those that are available afford indications of the highest value. It is only from the Annual Reports of County and Borough Asylums that the requisite information is to be obtained, and in consequence it is only the proportion of general paralysis among pauper patients that can be dealt with.

The following table shows the increase or diminution in the five years 1888-92 as compared with 1878-82 in the proportion of general paralytics per cent. of admissions in the case of 35 counties and 9 towns.

England and Wales, increase	...	...	...	...	...	0.7
COUNTRIES.						
Increase.						Decrease.
Northumberland (including Newcastle) ...	...	5.58	Bedford, Hertford, Huntingdon <i>a</i> ...	...	...	0.26
Glamorgan ...	...	5.10	Carmarthen, Cardigan, Pembroke ...	...	...	0.28
Lincoln ...	...	2.83	Lancashire ...	...	...	0.31
Warwick <i>a</i> (including Birmingham) ...	...	2.74	Sussex ...	...	...	0.45
Derby <i>a</i> (including Derby Borough) ...	...	2.32	Oxford ...	...	...	0.45
Cambridge ...	...	2.02	Yorkshire ...	...	...	0.57
Monmouth, Brecon, Radnor ...	...	0.96	Wiltshire ...	...	...	0.65
Hereford ...	...	0.71	Salop, Montgomery ...	...	...	0.75
Gloucester ...	...	0.40	Cumberland, Westmoreland ...	...	...	1.15
Northampton ...	...	0.03	Stafford ...	...	...	1.35
			Cheshire ...	...	...	1.65
			Dorset <i>a</i> ...	...	...	1.72
			Hampshire ...	...	...	1.94
			Worcester ...	...	...	1.99
			Somerset <i>a</i> ...	...	...	2.88
			Warwick (excluding Birmingham) ...	...	...	2.58
			Nottingham (excluding Nottingham Borough) ...	...	...	3.89
			Devon ...	...	...	4.91

		TOWNS.			
Increase.				Decrease.	
Newcastle	...	...	10.72	Leicester	...
Cardiff	...	...	6.91	Hull	...
London (City of) <sup>a</sup>	...	...	6.71		
Liverpool (Rainhill Asylum)	...	...	5.29		
Nottingham <sup>a</sup>	...	...	5.28		
Birmingham <sup>a</sup>	...	...	4.90		
Ipswich <sup>a</sup>	...	...	3.25		

<sup>a</sup> In these cases the periods contrasted are the five years 1883-87 and 1888-92.

What strikes one most forcibly on looking over this table is the position occupied by the large towns as compared with the rural counties. With but few exceptions the latter are characterised by an actual diminution in the proportion of general paralysis to admissions, while in the former there is an increase, which, relatively speaking, is enormous.

While the total increase for pauper patients in the percentage proportion of general paralysis to admissions for the whole of England and Wales between 1878-82 and 1888-92 is 0.7, Newcastle heads the list with an increase amounting to 10.72, and Devon comes at the other extreme with a decrease of 4.91. This increase appears more striking still when the sexes are taken separately, for in the case of males it amounts in Newcastle to no less than 15.28, and in Cardiff, where the increase for both sexes is 6.91, that for males is 13.61, and in Birmingham, where the total is 4.90, that for males is 7.46.

The increase in general paralysis is then associated in the closest fashion with life in large urban centres.

More than that. Of these large centres, the two which stand out most prominently, Newcastle and Cardiff, while representing the sea-port towns, have the further similarity that they are the chief centres of coal exportation in the kingdom.

Birmingham, again, when contrasted with the other parts of Warwick County, affords a striking illustration of the influence of urban life, for while in the county general paralysis is actually diminishing, it is quite otherwise in the city. Of the counties, it is noteworthy that the two which offer the greatest increase are those which are representative of the coal-mining counties, where wages generally rule higher than in any other part of the country. The condition of affairs in Lincoln is most likely to be accounted for by the presence within its borders of the port of Grimsby.

The fact that in Glamorgan in the intercensal period 1881-91 the population increased 33.70 per cent., while its mentally affected only increased 26.73, taken in conjunction with the further fact that the admissions of general paralytics increased 142.2 per cent. in the five years 1888-92 as compared with 1878-82, points to the conclusion that general paralysis, as regards its causation, stands on a footing quite different from other forms of insanity; and the fact that the counties which in general have a low rate of pauperism and of pauper lunacy are those which show the most pronounced increase of general paralysis, points in the same direction.

Furthermore it is surely, in relation to this subject, something more than a mere coincidence that with regard to the offence of drunkenness it is the sea-port towns which head the list and that next after them come the mining counties, the Metropolis and manufacturing towns, and that the lowest by a long way are the agricultural counties.\*

These facts, as well as the data afforded by the table giving the causes of general paralysis, all go to form additional links in the chain of evidence of the close association of excesses and general paralysis, and of the debasing of the moral and physical currency which present-day urban life involves.

#### *Assigned Causes of General Paralysis.*

There now remain for consideration the tables given in the Reports of the Commissioners of Lunacy dealing with the "assigned causes of insanity" and the possible bearing they have in relation to the subject of this paper. In the table on next page the causes are stated for (1) all forms of mental diseases exclusive of general paralysis; and (2) general paralysis for the two quinquennia 1878-82 and 1888-92, and these two periods are contrasted, the difference being indicated by a plus or minus sign.†

A general survey of this table shows that certain factors have undergone no material alteration, while with regard to others, changes, some slight and some not so, either in the direction of increase or diminution, have occurred. Taking

\* The proportion of the offence of drunkenness per 10,000 population in 1893 was:—England and Wales, 582.46; Seaports, 1,337.72; Mining Counties, 963.15; Metropolis, 600.64; Manufacturing Towns, 457.90; Agricultural Counties 167.79.—*Criminal Statistics, 1893*, p. 91.

† Inasmuch as in the etiological tables dealing with general paralysis no distinction is made between private and pauper cases, or between exciting and predisposing causes, it is necessary for purposes of comparison to take both classes of cases combined and the total causes.

TABLE showing by a Yearly Average the Assigned Causes of Insanity in (1) All Patients, exclusive of General Paralytics (2) in the cases of General Paralytics admitted into Asylums in England and Wales during the five years 1882-1886 and during the five years 1888-1892, and the difference between these two periods.

CAUSES OF INSANITY.												Difference between 1878-1892 and 1888-1892.																	
All patients exclusive of General Paralytics.						1878-1892.						1878-1882.						1888-1892.						General Paralytics.					
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.		
1 Domestic trouble (including loss of relatives and friends) ...	4.2	9.8	7.2	4.1	8.9	6.7	3.4	9.3	4.7	4.5	9.7	5.4	-1	-9	-5	+1.1	+4	+7	-3	-3	-1	+1.5	+1.4	+1.5	+1.6	+1.6	+1.6		
2 Adverse circumstances (including business anxieties and pecuniary difficulties) ...	8.0	3.5	5.6	7.2	4.2	5.6	10.7	4.2	9.3	10.7	3.9	9.4	-8	+7	0.0	0.0	-3	-3	-3	-1	-2	-1	-2	-1	-2	-1	-2	-1	
3 Mental anxiety and "worry" and over-work ...	6.3	5.4	5.8	5.9	5.7	5.8	6.9	2.9	6.1	8.4	4.3	7.6	-4	0.0	0.0	-3	-3	-3	-1	-2	-1	-3	-1	-2	-1	-2	-1		
4 Religious excitement ...	2.6	3.1	2.9	2.0	2.3	2.2	1.6	.7	.6	.4	1.4	1.4	-6	-8	-7	-3	-3	-3	-2	-2	-1	-3	-1	-2	-1	-2	-1		
5 Love affairs (including seduction) ...	2.8	2.7	1.8	1.7	1.8	1.7	1.4	1.4	1.4	1.3	1.3	1.1	-1	-4	-2	-3	-3	-3	-2	-2	-1	-3	-1	-2	-1	-2	-1		
6 Fright and nervous shock, ...	1.0	2.2	1.7	1.7	1.8	1.7	1.4	1.4	1.4	1.6	1.7	1.5	-5	-2	-2	-3	-3	-3	-1	-1	-1	-3	-1	-2	-1	-2	-1		
7 Intemperance (in drink) ...	19.6	6.9	12.8	19.8	7.7	13.1	24.3	14.5	20.3	26.1	20.1	24.9	-0.0	+8	+3	+1.8	+5.6	+1.6	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0		
8 " " (sexual) ...	8.8	5.5	6.6	7.9	5.7	6.6	2.9	3.2	3.0	3.9	5.4	4.2	-1	0.0	0.0	+1.0	+2.0	+1.6	+2.0	+2.0	+2.0	+2.0	+2.0	+2.0	+2.0	+2.0	+2.0		
9 Venereal disease ...	7.7	2.2	5.5	5.9	3.3	5.6	1.4	1.5	1.4	3.9	1.4	3.4	-2	+1	+1	+2.5	+1.0	+2.0	+1	+1	+1	+2.0	+1	+1	+1	+1	+1		
10 Self-abuse (sexual) ...	2.4	2.2	2.5	3.0	1.3	3.0	..	..	..	..	3.0	..	-2	+1	+1	+0.0	0.0	0.0	+2	+2	+2	+2	+2	+2	+2	+2	+2		
11 Over-exertion ...	2.7	6.6	4.4	4.4	1.4	4.2	..	..	..	..	1.0	..	-4	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3		
12 Sunstroke ...	2.4	1.2	1.8	1.2	1.8	1.0	..	..	..	..	2.5	1.7	..	1.3	..	-6	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1		
13 Accident or injury ...	4.9	1.1	2.8	4.6	1.0	2.6	7.3	2.2	6.2	6.8	1.8	5.8	-3	-1	-1	-5	-4	-4	-5	-5	-5	-5	-5	-5	-5	-5	-5		
14 Pregnancy and the puerperal state ...	1.0	1.0	1.0	1.0	1.0	1.0	..	..	..	..	1.1	1.1	..	1.1	..	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
15 Parturition and the puerperal state ...	6.6	6.6	6.6	6.5	6.5	6.5	4.6	4.6	4.6	4.6	4.6	4.6	..	1.4	..	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1		
16 Lactation ...	2.0	2.0	2.0	2.0	2.0	2.0	..	..	..	..	1.2	1.2	..	1.7	..	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3		
17 Uterine and ovarian disorders ...	2.7	2.7	2.7	2.7	2.7	2.7	..	..	..	..	1.2	1.2	..	1.7	..	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3		
18 Puberty ...	2.1	2.1	2.1	2.1	2.1	2.1	..	..	..	..	1.0	..	..	1.4	..	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
19 Change of life ...	3.5	3.5	3.5	3.5	3.5	3.5	..	..	..	..	3.4	3.4	..	3.2	..	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
20 Fevers ...	1.0	1.0	1.0	1.0	1.0	1.0	..	..	..	..	1.4	1.4	..	1.4	..	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
21 Privation and starvation ...	1.4	2.1	1.8	1.4	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	-3	1.7	..	-0.0	+2.0	+2.0	+2.0	+2.0	+2.0	+2.0	+2.0	+2.0	+2.0	+2.0	+2.0		
22 Old age ...	3.9	4.4	4.2	3.9	4.4	4.2	10.4	10.2	13.2	12.0	10.6	12.9	1.8	1.5	1.25	11.7	12.9	11.7	12.9	11.7	12.9	11.7	12.9	11.7	12.9	11.7	12.9	11.7	
23 Other bodily diseases or disorders ...	10.4	10.2	10.2	10.2	10.2	10.2	18.0	18.0	18.0	18.0	18.0	18.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4		
24 Previous attacks ...	13.9	17.0	15.5	13.9	17.0	15.5	18.0	2.6	19.9	14.7	7.5	5.3	5.2	7.2	5.6	14.1	16.0	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	
25 Hereditary influences ...	6.2	3.6	4.8	7.2	4.4	6.7	1.6	1.6	1.6	1.6	1.6	1.6	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1		
26 Congenital defect ...	3.3	1.1	2.1	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1		
27 Other asserted causes ...	21.3	22.1	21.7	21.7	21.7	21.7	17.3	17.1	17.1	17.1	17.1	17.1	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3		
28 Unknown ...	...	...	...	...	...	...	...	...	...	...	...	...	27.6	30.1	29.4	32.9	30.1	27.6	31.2	28.3	31.2	28.3	31.2	28.3	31.2	28.3	31.2	28.3	

the "moral" causes together it will be observed that while these apparently diminish as factors in the production of insanity (exclusive of general paralysis), in general paralysis itself there is a not inconsiderable increase amounting to 1·4 per cent. It is unnecessary to treat each of the items of this table in detail; it will suffice to indicate the outstanding features. Dealing thus with the figures given, the following points seem to call for special mention. Foremost of all comes intemperance in drink. While the increase of this as an etiological factor in insanity amounts to only 0·3 per cent., in the case of general paralysis it amounts to no less than 4·6. The unfavourable position occupied by women in this respect will also be noticed. When the causes numbered 7, 8, 9 (alcoholic and sexual excess and venereal disease), which are in practice so often found together, are combined the result is more striking still.

Thus while the increase for insanity amounts to, males 0·4, females 0·9, total 0·4, in general paralysis the corresponding figures are 5·4, 7·6, 7·8. Surely here we have a light which is by no means uncertain thrown upon the causation of the increase of general paralysis.

Another interesting feature of this table is that which relates to the reproductive life in the female sex and which is comprised in causes numbered 14 to 19. Here there is as regards both forms of mental disorder an actual diminution, but while in that exclusive of general paralysis it amounts to only 0·8, in the latter it amounts to no less than 5·0. The significance of this fact is by no means a slight one.

The marked increase of "old age" in relation to the one form of insanity, and its marked contrast with the diminution in the case of general paralysis, fully bears out the remarks already made when considering the subject from the age-relation point of view.

"Previous attacks" and "hereditary influences" appear to be increasing factors in the causation alike of general paralysis and of other forms of mental disorder, though to a much less extent in the former than in the latter.

What part influenza, whose prevalence has been such a marked feature of the last quinquenniad, has played in the etiology of insanity, it is impossible from the data given to say. If it were included under the heading "fevers" it would seem to be responsible to some extent for an increase of general paralysis, but not of other forms of insanity; while, if it were included in "other bodily diseases and disorders," the reverse would hold.

The further question arises, whether it is possible from the tables of causes to arrive at any explanation of the previously remarked diminution in the ratio of general paralysis in private female patients. The evidence on this point is, for reasons already stated, only of an indirect kind, and is to be found in the tables which refer to mental disorders *inclusive* of general paralysis and in which the social condition is distinguished. According to these tables there is in the case of both private and pauper females a diminution in the second as compared with the first quinquenniad in the proportion of the assigned causes termed "moral" which is greater in the case of the latter (9.8 and 1.0 per cent.) As regards those causes which relate to the reproductive life, while there is an increase of 0.1 per cent. in the case of private females, in the case of pauper patients there is a diminution of 1.0 per cent. These then afford no explanation of the decrease of general paralysis among private female patients, but quite contrariwise. It is different, however, with alcoholic intemperance. Here as regards private patients there is a diminution of 0.5 per cent., but in the case of pauper patients an increase amounting to 1.3 per cent. It may therefore be reasonably concluded that herein is to be found the explanation of the diminishing ratio of general paralysis among females of the private class.

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The bald statement that the average annual number of general paralytics per cent. of the total admissions, which in the five years ending 1882 was 8.0, had in the five years ending 1892 risen to 8.9, may seem but a trifling matter. This increase of 0.9 is, however, by no means a slight one, for it represents a percentage increase in the annual admissions of 34.6, as compared with only 19.3 for other forms of insanity, and its significance too is great.

There is, so far as one can judge from statistics, no increasing liability to insanity on the part of the English race, but one is irresistibly compelled to conclude that in these latter years of this nineteenth century a change is taking place in the type of insanity, a change which surely indicates a reversion to a lower and more hopeless form of brain disease, a diminishing vitality, a lessening power of resistance,\* and an increasing tendency to premature and rapid racial decay.

\* Further and very powerful evidence of the diminishing power of resistance of the race is afforded by the disproportionate increase during the past twenty

A study of the age-incidence of the disease only serves to further deepen the significance of the fact. For not only is there an absolute total increase of this fatal affection, but it is chiefly in the earlier years in which it occurs that the increase is found to take place. In other words the tendency to race decay becomes not only more marked, but it becomes at the same time increasingly manifested at an earlier stage. This, as Mickle says when dealing with this aspect of the subject, "would speak ill for the vitality of the peoples of the West of Europe, as far at least as the disease may be deemed analogous to a prodigal wasting of vital power and premature senility, the earlier attainment of old age in the individual members of a race being the forerunner and prophet of its imminent decay."

#### *The Source of the Increase.*

As has already been stated, there are two outstanding facts referring to this point, and which are in a measure related. First, the increase is 19 times more among males than females. Further, the increase in males is twice as great in that section of society which furnishes private patients (upper and upper-middle classes) as that which occurs in the population from which pauper patients are derived (lower-middle and lower classes).

The unique position occupied by women of the upper and upper-middle classes already referred to is the only redeeming feature in this otherwise sombre picture. Whether the prevailing movement which has for its object the removal of existing inequalities between the sexes, and the increasing extent to which women are engaging in spheres of activity formerly restricted to men, will ultimately affect this position, time alone will show.

In the second place, the factors which have contributed most to this increase are these three—intemperance in drink,\*

years of suicide, which to the extent of 98 per cent. is adjudged to be the outcome of insanity.—*Criminal Statistics, 1893.*

\* The average annual proportion of persons per 10,000 of population tried for the offence of drunkenness in England and Wales during the four quinquennials ending 1893 was 812, 698, 636, 615. Here apparently is opportunity for congratulation. But are we justified in concluding that as a race we are becoming more "temperate?" Or is it that we are only a less drunken race? Custom has altered since the *Pickwickian* times, and to get drunk is now decidedly "indecent;" but are we in reality more temperate? Whether there is temperance or its opposite depends upon results. Drunkenness obviously implies excess; increasing general paralysis implies the same thing, not so obviously, but still none the less really. The significance of the replacement of drunkenness by general paralysis lies in the fact that it indicates a greatly increased tendency to race decay.

sexual excess, and its consequences. A study of these, and of those which are associated with the reproductive life in women, leads one to the conclusion that this ominous feature of the life of the nation is not related to the altruistic, other-regarding instinct, but finds its explanation in quite other causes. Selfish indulgence, lustful gratification, insatiable animalism, "general sensuality and fastness," these are to a very large extent the "grand parent-manufactory of the evil." "General paralysis," as has not inaptly been said, "is the apotheosis of selfishness." The opening chapter is moral decadence; the closing acutely rapid physical and intellectual degeneration and inevitable premature extinction.

There is very little, if anything, to show that the "struggle for existence," the "stress of circumstances" is responsible for the condition of affairs here indicated; rather is it quite the reverse. Exception must be made in the case of that class which furnishes no small proportion of general paralytics, and which is represented by the unfortunate being who "submits herself as the passive instrument of lust and appears in every age as the perpetual symbol of the degradation of man," and who in the great proportion of instances is impelled to the course of life by the most extreme poverty.

#### *The Remedy.*

The increase of this peculiarly fatal disease is, as has already been shown, to be traced chiefly to causes which are to a very large extent controllable, and the only direction in which a remedy is to be sought is in that of prevention. For general paralysis *in esse* remedy there is none (in the present state of our knowledge); death is inevitable, with mayhap a few years of respite such as it is.

The inequitable distribution of wealth, leisure, and knowledge is held by not a few to be the source and origin of the main part of the existent miseries of life, but what avails it if wealth and leisure come without the more essential knowledge? In spite of our School Boards and Christian educations, our "statistics, unshackled presses and torches of knowledge," there is still much ignorance abroad, even, and perhaps most so, among those classes commonly designated the "cultured," a deplorable, and often wilful, lack of knowledge in the real and true sense of the term, knowledge, that is, of the inexorable laws of life "in departing

from which lies and forever must lie, sorrow and defeat for each and all of the posterity of Adam in every time and every place."

*Summary.*

I.—There is no evidence of increasing liability to insanity on the part of the English race.

II.—There is evidence of an increasing tendency to general paralysis.

III.—This is most pronounced among males, in whom the increase is nineteen times what it is in women.

IV.—Among males the increase in private patients is more than twice that in pauper patients; in the former it is steadily progressive, in the latter it is a diminishing increase. Among females the increase in paupers is slight. In private female patients there is a steadily maintained diminution.

V.—The age at which the increase of general paralysis attains its maximum is the decade 35 to 44; in other forms of insanity the increase occurs at ages over 45 and is greatest at ages over 55.

VI.—The increase is greatest among married men, being five times that which occurs in unmarried men, and sixty times that in married women.

VII.—The greatest increase is found in large urban centres, most so in sea-ports and in particular coal-exporting towns; the next greatest in coal-mining counties and manufacturing towns, while in agricultural counties there is a decrease. A close parallel, as regards geographical distribution, is to be traced between the increase of general paralysis and the occurrence of the offence of drunkenness.

VIII.—The etiological factors most responsible for the increase are alcoholic intemperance, sexual excess, and venereal disease. The causes connected with the reproductive life of women are diminishing as factors in the production of general paralysis. The increase finds its origin in causes related to the self-regarding, not the altruistic, instinct.

IX.—The increasing prevalence of general paralysis indicates a change in the type of insanity, a reversion to a lower form of brain disease, increasing moral and physical decadence, lessening power of resistance and diminishing vitality, and increasing tendency to premature and rapid racial decay.

X.—The affection being absolutely fatal, and the causes being to a very large extent controllable, the only direction in which the remedy is to be sought is in that of prevention.

*The Hospital Treatment of the Insane in Asylums.\** By J. MACPHERSON, M.D., F.R.C.P.E., Medical Superintendent, Stirling District Asylum.

It is scarcely 20 years since those interested in asylum administration in Scotland began to realise that the interests of the sick and infirm were not so adequately provided for in asylum construction as the requirements of such patients demanded. The desire to improve the efficiency of asylums by providing ampler accommodation for the treatment of that class of patients gradually extended itself so as to include within its scope the treatment of the acutely insane in combination with the sick and infirm, that is, all the inmates of asylums who especially require the services of the physician and the nurse. This idea again expanded itself until a rearrangement of the whole asylum population into two main portions was proposed. The smaller portion was to consist of the newly-admitted cases, of cases requiring special medical attention for any reason, and of the sick and infirm cases. The larger portion was to consist of the quieter chronic and industrious cases for whom the same active medical and nursing supervision was unnecessary. This, which may be called the hospital movement in the Scottish Asylums, has now attained practical expression, and has with considerable variety certainly, yet with conspicuous uniformity in its main principles, been adopted in upwards of 50 per cent. of the public asylums of the country.

It would be impossible for a movement such as this to advance to its present state of achievement without the aid of a leader, or, at any rate, of an example, and without the support of somebody of opinion with sufficient influence to make itself felt and heard. Between the years 1877 and 1882 extensive improvements and alterations were made by Dr. Clouston upon the West House at Morningside. Among the most important and significantly far-reaching of all these changes was the conversion into hospitals of two one-storeyed blocks of buildings, one on each side, at the extremities of the male and female divisions of the asylum. These blocks were originally used as wards for noisy and troublesome patients, and were situated at considerable distances from the main buildings, so that the noise of the refractory patients, more especially at night, might not disturb the quieter patients. Out of these blocks, unsuited

\* Read at the Annual Meeting of the British Medical Association, Carlisle, 1896.

by design, conformation, and traditions for the purposes of hospitals, Dr. Clouston constructed what were for some years the best if not the only separate Asylum Hospitals in Scotland. No person could walk through them without being struck by the comfort afforded to the patients by means of the decorations, the large staff of nurses, the comfortable beds and the large number of bright well-heated, well-ventilated single rooms for the acute, feeble, infirm and aged cases. Under this system the nursing, especially of the female aged and infirm cases at Morningside, reached a degree of perfection that it would be impossible greatly to improve upon.

This formed the germ of the movement. Its influence rapidly spread until the idea had rooted itself as a possibility in the minds of asylum administrators throughout the country. The idea was fostered and encouraged by the Board of Commissioners, who concentrated for a time their recommendations in the matter of asylum improvement and extension in the direction of the hospital system. The model plans of the Board of Commissioners prepared by Mr. Sydney Mitchell in 1880 in view of the immediately impending great asylum extension in Scotland, were designed to illustrate an asylum providing accommodation for 1,000 patients, and they gave the first complete form to the idea of the administration of the hospital separately from the rest of the asylum.

In these plans an asylum was divided into two separate sections, the smaller of which—the hospital—was constructed for the accommodation of one-third of the entire population. The hospital was furnished with a small administrative block, a kitchen and a dining hall, and was for all purposes completely isolated and self-contained. Without taking into consideration the two primary divisions into male and female sides, the hospital was divided into three sections. 1. A section containing all the newly-admitted cases and all cases requiring special supervision, either on account of suicidal tendencies or for any other similar reason. 2. A sick-room section or general hospital wards for the treatment of medical and surgical cases, or for all cases requiring ordinary hospital treatment on account of either bodily or mental illness. 3. A section devoted to patients requiring special nursing on account of general feebleness, wet or dirty habits, or other peculiarities which demand treatment of a special kind.

These plans were being constantly submitted by the

Central Board to the various authorities who were engaged in the consideration of the best methods of asylum construction and extension, and at the same time the claims for a more specialised, more separate and more emphatic treatment of the acutely insane and the sick and infirm insane were persistently and powerfully urged.

The influence of the General Board in fostering the idea and keeping it before the public cannot be over-estimated. There is, I am sure, no claim for originality, either national or individual, put forward by the most ardent advocates of the system in Scotland. As to precedence in the detached hospital principle, we do not fail to recognise what has been done in foreign asylums and Lunatic Colonies. Where asylums like Alt Scherbitz, Emmendingen, or Kankakee are built upon the separate pavilion system, it is necessary that they should possess central pavilions into which all new cases may be admitted for purposes of observation and medical examination, and into which all recurrent cases of mental disturbance are returned for treatment during the attack.

Further, it is evident that these institutions must have in their central department accommodation for the medical nursing and treatment of the sick and infirm. To a much greater extent does the idea of the separate hospital appear in the large continental lunatic colonies of Gheel, Lierneux, and Dun-sur-Auron. The cottages of the peasantry in such districts are wholly unsuited for any but the placid and manageable insane, which necessitates the admission of all cases to the hospital in the first place, and the immediate return thereto of all excited and turbulent cases. It is obvious that in these colonies where the patients consist so largely of chronic cases the hospitals must be small. Of the 1,900 patients in the Gheel colony not more than 70 were in hospital, while of the 400 and 200 in Lierneux and Dun-sur-Auron respectively, there were only six in hospital in the former and none in the latter when I saw these colonies last year. It is right to explain that acute cases are not excluded from Gheel and Lierneux, while only chronic suitable cases from the asylums of the department of the Seine are sent to Dun-sur-Auron. The principle of the Scottish Asylum Hospital carried to its highest development is the same as in the Colony Asylums and Lunatic Colonies I have mentioned, viz., a central curative medical and nursing department separate from the home for the care of the quieter chronic and industrious class of patients.

There are thirteen asylums at the present time in Scotland which have adopted in various ways and according to the views of their administrators the hospital system. The leading idea—separate and special accommodation for the mentally and physically sick—is in every case the same. The methods vary in almost every instance, but a rough classification may be made as follows: In six asylums the hospital is a separate, detached, and practically independent building; in seven it consists of special accommodation added respectively to the male and female sections of the asylum.

The latter system, which is not peculiar to Scotland, may be described as a compromise, being on the one hand a concession to the older and traditional method of asylum construction, and on the other an acknowledgment of the principle of the newer idea. The first of these was opened in 1889 at Murray's Royal Asylum, Perth, and the most recent examples of this mode of hospital construction are to be seen in the Barony Asylum at Lenzie, and the new Lanarkshire Asylum at Hartwood. In neither instance is the separate hospital system carried out in its entirety. At Hartwood only those cases among the admissions which seem to require medical attention on account of physical disease or weakness are sent to the hospital. Excited cases, recurrent cases, and acute mental affections are not treated in the hospital. In fact, it is on the lines of Morningside. At Lenzie new wards and dormitories for recent and acute cases were added to the old infirmary section on each side, thereby converting the old sick and infirm wards into modern hospitals.

The system of attached hospital wards is being most perfectly developed at the Inverness Asylum and the Perth District Asylum at Murthly. In each of these asylums operations are in progress for converting the wings of the main buildings into special hospitals, each wing (male and female) being divided into four sections—for receiving all recent acute cases and all cases requiring general hospital treatment and special supervision, while at Murthly Convalescents are provided for in separate houses.

The credit of building the first detached hospital in Scotland is due to Dr. Howden, Montrose. His views are not quite in accordance with those I have just indicated, especially with reference to the admission of recent cases, the majority of whom he considers are better treated in the admission wards forming part of the main buildings of the asylum.

The Montrose Hospital, which was opened in 1889, and which was admirably and beautifully constructed, formed the model, or, at any rate, gave the suggestion which led to the building of the other detached asylum hospitals that are either in use or approaching completion in Scotland at the present time. The asylum hospitals at Aberdeen, Fife, Glasgow, Govan, and Stirling provide accommodation for all new cases without exception ; for cases of acute recurrent insanity occurring in the asylum ; for cases requiring ordinary hospital treatment, and for the feeble and infirm. These hospitals afford accommodation for between 25 and 35 per cent. of their asylum populations, and each is divided into from three to five sections for the treatment of an equal number of classes of the insane. The type of detached hospital will be found most fully developed and perfect when completed in the Glasgow and Govan Asylums. In these asylum hospitals the observation ward, which all recent cases enter in the first place, forms a special and admirable feature. These wards, which are small and provided with beds, are situated near to the front door, so that first impressions of a disagreeable kind are as far as possible evaded, and the patient passes gradually into the reality of asylum life.

In the attached hospitals which are in course of erection at the Inverness Asylum, Dr. Keay, I am glad to observe, has in prospect the construction of convalescent wards. I regard these as of great value, not only as adjuncts towards completing the satisfactory recovery of many cases and as observation wards, but also as being the only possible means of enabling us to prevent some patients from coming into contact with what from one point of view may be termed the seamy side of institution life as represented by the chronic wards of an asylum.

The hospital of the Stirling Asylum is unfortunately smaller than the requirements of our large admission rate demand. Consequently, curable cases have constantly to be transferred to the other parts of the asylum earlier than I should wish. Whenever the patient is sufficiently rational to appreciate the removal from the hospital to another section he invariably dislikes it, and I have heard patients congratulate themselves when being discharged recovered that they had not been sent to the "asylum."

Another section might be with great benefit added to modern asylum hospitals, viz., isolation wards for the treat-

ment of pulmonary phthisis. These cases require constant nursing and their presence among the ordinary sick is a source of active danger. In the famous Illenau Asylum there is a beautifully constructed one-storeyed pavilion with glass verandahs all round it for the sole use of such cases.\*

In a paper of such limited length I cannot enter into the many details that distinguish one hospital from another, but enough has been said, I trust, to indicate the significance of the movement, its wide extension, and the manner of its application. I can foresee many objections from a conservative point of view that might be urged against this system by those who have either not had experience of its working, or who have never seriously considered it. For instance, I have heard a celebrated continental alienist remark that the term "hospital" applied to a section of an asylum in this sense was nothing short of blasphemy, the implication of course being that all parts of an asylum should be an hospital. No doubt such an aspiration is ideally perfect, and I for one heartily concur, while at the same time pointing out that all parts of an hospital are, or ought to be, different from one another, some possessing more of the hospital character than others. The various parts even of an asylum of the prevailing type must present contrasts of a striking kind if classification is at all carefully attended to. Again, there is probably no modern asylum in this country that does not possess a section for sick and infirm patients, and another for recent and acute cases. What then, it may be asked, is the difference? Some may argue as follows: "In the one case the sections are separate, in the other combined; but the treatment in the one is as efficient as in the other. You erect a large detached ward or pavilion in which you place groups of incompatible cases on a bad basis of classification; you are pleased to call it an hospital, and you claim superiority for it."

I admit that the distinction appears to be a comparatively slender one when thus stated, but the departure in the separate hospital direction is nevertheless more important and vital than a mere verbal comparison such as this can convey. I cannot conceive of any opponent of the system suspecting us of harbouring the idea that the mere fact of having a separate hospital attached to an asylum carries with it the right to claim any superior medical or nursing

\* At Ville Juif, Paris, the phthisical patients live in the open-air, sleeping in a curtained verandah all the year round.—ED.

skill on the part of the staff. Far from it. The contention is that the re-arrangement in the structure of the asylum, and in the classification of the patients, possesses certain marked advantages from a clinical and therapeutical point of view.

1. First and foremost among these advantages is the nursing of the patients. It is of primary importance to the working of the system that all the sections should be under the charge of one nurse. In this way only can all classes of the insane—acute, sick, and infirm—participate equally in the benefits of sound nursing. The true nursing spirit will always tend to generate itself most effectively in the sick and infirm section of an asylum, and most often the best nurses and attendants are found in those wards. In Asylum Hospitals the sick and infirm are placed as far as possible in the midst of the most favourable conditions for treatment, and the nursing spirit and training that necessarily comes from constant contact with the sick and bedridden is extended with the best results to the recent and acute cases. The inclusion of the acute and recent cases for combined treatment with those suffering from bodily illness, under one head and one nursing staff, is an emphatic acknowledgment of the fact that the mentally afflicted are entitled, as all asylum physicians hold, to an equal share of the tender attention that is universally accorded to patients suffering from bodily disease or infirmity. It is further a recognition of the similarity in origin and of the similar principles of treatment for mental and bodily diseases. This is not without its influence upon the general behaviour of the nurses. In its simplest forms that attention is manifested by a more accurate observation on the part of the nursing staff of the physical side of the phenomena of mental affections, and a greater facility in the use and command of many important agents in the treatment of the insane, such as couches, beds, extra food, baths, etc., that result from an association of sick and infirm wards with those for the reception of new cases. The result of this combination of patients for nursing purposes is, according to my short experience: (1), a fuller recognition by our nurses of a fact which it is vitally important for all concerned that they should learn, viz., that a madman is a sick man; (2), the awakening of a fresher and more interested sympathy towards cases of acute insanity; (3), a greater amount of individual treatment of the cases; (4), a more evident bond of friendship between

nurse and patient than formerly existed has sprung up in consequence of this system ; and (5), a marked diminution in the discontent and dislike to asylum restraint which the majority of new cases manifest on first admission. (I have been often impressed by the aversion which many of the more rational patients exhibit to being transferred from the hospital to other parts of the asylum, as well as by the willingness of many chronic patients to be sent to the hospital for treatment.) The possibility which this system affords for the introduction of female nurses into the male wards is one of its chief advantages. I consider, therefore, that the facility the hospital system affords for the combined nursing of the various classes of patients already mentioned to be its outstanding merit.

2. The medical treatment and study of the insane is facilitated in a manner that is impossible under any other system. It is no longer necessary to separate cases of puerperal insanity from ordinary cases of acute mania by long distances which render synchronous observation impossible, or to send two cases of general paralysis each to different parts of the asylum. The order to place a chronic patient under stricter supervision implies, in addition to greater security, the conferring on the patient of many other important benefits. Recurrent attacks in chronic patients are treated in the same way as if they were recent. Their isolation is not only attended by relief to their quieter fellow-patients, but, combined with active treatment, tends to shorten the attack and to prevent the host of unpleasant incidents that usually accompany such attacks when left to expend themselves in ordinary asylum wards. The grouping of such cases is, therefore, most important, for it concentrates the energies of the medical staff and thereby facilitates case-taking, clinical observations, the carrying out of special medical directions, and the constant supervision of the physicians.

3. Another advantage which may be pointed out is that administration is much simplified under this arrangement. All those cases that in an asylum give rise to most anxiety for any reason are concentrated in a smaller area, and in this way the risk of accidents and of danger is diminished by one half, for the opportunities become correspondingly limited. Explosive units scattered over such huge populations as many modern asylums possess are necessarily uncertain, and may at any moment react in the most unforeseen manner.

When these units are collected together under the supervision of a numerically strong nursing staff, both the danger and the anxiety decrease *pari passu*; and when all such cases, whether they cause anxiety on account of insanity, physical illness, suicide, or homicide, come under uniform treatment of a palliative kind, we should expect to find a further diminution in the chances of the occurrence of those multitudinous mishaps that fortunately loom larger in apprehensive imagination than in fact, but which are not the less harassing on that account.

4. Administration, moreover, is further simplified by ridding the chronic insane of the disadvantages to them which association with noisy, acute, or special cases of any kind necessarily involves. Association in the same wards and dormitories, which is sufficiently objectionable, is effectually avoided; but there are many other disadvantages which also disappear. The tranquillity that ought to pervade the apartments forming the life-long home of two-thirds of our asylum inmates is no longer broken in upon. The ward and kitchen staffs of the main building are no longer distracted by special duties or special diets. The dining halls are quiet, orderly, and peaceful, and everything in the daily routine adapts itself to the special wants of the semi-industrial community for whose happiness such a system is essential.

5. The contiguity of the two sections, the constant transference of patients from one to the other, the presence of large numbers of incurable patients in the hospital, and the undivided control of one responsible head, prevents the formation of any unfavourable contrasts between chronic and curable cases. The idea of curability or incurability does not enter as a factor into this arrangement. The classification has other and more humane objects, chief among which are, as I have already indicated, the more emphatic and more effective treatment of the large class of the insane for whom active medical and nursing attention is necessary, and the provision for the quieter chronic and industrious insane of that amount of comfort and calm which their life-long residence in an asylum demands.

Such, briefly, is an outline of what I have called the Asylum Hospital movement in Scotland. It would be foolish to describe it as a perfect working system or as a final solution of the problem and difficulties of asylum administration. It is, however, one of the most important departures made

in Scottish lunacy administration during the last 40 years, and will, it is to be hoped, be judged in the future not by any results of treatment, statistical or otherwise, but according as it harmonises with those leading humanitarian and medical principles which have always actuated the greatest minds and the greatest movements in our specialty.

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*Note on Female Nursing in an Asylum Male Sick-room.* By  
A. R. TURNBULL, M.B.Edin., Medical Superintendent,  
Fife and Kinross District Asylum.\*

My object in this paper is to give a brief note of a trial which has recently been made in the Fife Asylum, in the way of introducing female nursing in the male sick-room. Nursing is peculiarly woman's province; and it has, I believe, often been felt that it would be a great advantage if female care could be more freely utilised in the management of male insane patients, or at least of those of them who are suffering from special bodily disease in addition to the mental symptoms. The main objections to the step have hitherto been: (1) that some of the habits and peculiarities of the male insane may make it unfit or undesirable to have them under female care; and (2) that in many asylums the structural arrangement makes it difficult or impossible to bring the male sick-room under systematic supervision by the female staff. Lately it was necessary to build a large addition to the Fife Asylum; and advantage was taken of this opportunity to get rid of the second objection mentioned. The new building is a hospital block, and is intended to receive recent admissions, cases requiring *special* observation on account of their mental state, and cases of bodily illness. Each side (male and female) is divided into three sections: 1st, sick-room proper (for cases of bodily illness); 2nd, special observation ward (intended for new cases, and cases needing continuous supervision on account of suicidal or other dangerous tendency); and 3rd, general observation ward. There are the usual dining-hall, kitchen, and administrative rooms in the centre of the building. The male and female sick-rooms are placed next to the administrative portion, one on each side; and as the doors here are unlocked during the day, with free communication by the corridor, the male sick-

\* Read at the Annual Meeting of the Medico-Psychological Association, London, July, 1896.

room is easily reached from the female side, and is administered by the matron, the head nurse (who has charge of both sick-rooms), and two junior nurses. Each sick-room communicates with a special observation dormitory, beyond which again is the special observation day-room. This dormitory is empty during the day, but receives at night the cases which require continuous supervision on account of suicidal tendency, and which come to it direct from the special observation day-room. On the male side the door between the sick-room and the observation dormitory is kept locked during the day ; and there is thus no direct communication between the sick-room and those parts of the male side which are under the charge of attendants, except by the general corridor. When the Medical Officer makes the evening visit, this door is unlocked, and the sick-room and observation dormitory are thrown into one and come under the charge of a male attendant, who is on duty during the whole night, while the nurses return to the female side of the building. This plan was followed because our numbers are too small to require separate attendance in the two rooms ; and in this way the sick-room is under female care during the day, but is supervised at night by the male staff.\*

When the building was being brought into use, I at first intended that a qualified nurse should have charge of both sick-rooms, but that on the male side she should be assisted by attendants, not by nurses. The matron and senior nurse, however, while willing and indeed anxious to try the work, said they would rather undertake it with the assistance of other nurses than in association with male attendants ; and I willingly agreed to making the trial in this way, though I was not quite free from the old feeling that probably some amount of male assistance would be necessary in managing the patients. The result has been very successful. Various forms of bodily ailments, of the kind usually met with in asylum work, have been treated in the sick-room, such as general paralysis, epilepsy, other forms of organic brain disease, influenza, lung affections, senile breakdown, skin diseases, peri-typhlitic abscess, and minor surgical conditions (abscesses, ulcers, bedsores, etc.). These have occurred in patients who varied very much in their mental state, and showed conditions of congenital imbecility, dementia, simple and subacute mania, delusional mania, chronic mania, and

\* A sketch plan of the building was exhibited, showing the arrangements described.

acute and chronic melancholia ; and it has been found quite practicable to have them all under female care. Even on those points which occur to one at once as likely to lead to difficulty among insane patients on the score of decency or delicacy, there has been no serious trouble. In many cases the patients learn very quickly to assist themselves and to be correct in their habits ; and when they are too demented for this, the difficulty can often be tided over by a little tact on the part of the nurses and assistance from some of the other patients in the room. When a patient is very helpless, the difficulty of managing him is of course not more serious than it would be in nursing the same kind of bodily illness in a sane patient outside an asylum. In passing I may mention that we have a female patient assisting regularly in doing the housemaid's work of the male sick-room.

I always desire that all cases confined to bed for bodily illness—but not necessarily those in bed for mental excitement only—should be in the sick-room, instead of being left in other wards ; and generally it is quite practicable to accomplish this, even though the sick-room is during the day managed entirely by females. It is very exceptional that some feature in the mental state of the patient makes it impossible to place him in the sick-room, or necessary to remove him if he has been sent there. Indeed one or two patients who were very turbulent and troublesome under the old plan of male nursing have proved much more amenable to control, and more contented under the new arrangement ; and another case who at first scouted the idea of being looked after by women became both pleased and very grateful for the nursing he received. The general impression given of greater attention to and greater deftness in the various details of nursing, and of the consequent enhanced comfort of the patients, is very gratifying. The presence of the nurses gives a different and better tone than what generally prevails in a ward with only male occupants ; and in this way, as well as in the more efficient nursing, the plan is distinctly beneficial to the patients. It seems to me to have also a good effect on the staff, as they realise better that their work is one of true nursing ; and the nurses often say that there is less difficulty in managing the male sick-room than in managing some of the female wards.

In connection with such sick-room work, it is, I think, very advantageous to have great facility for moving patients from ward to ward according as their mental or bodily condition

may require; and for this purpose the hospital block in the Fife Asylum is connected to the old building by a corridor on both the male and the female side. For example, we have a patient suffering from congenital imbecility with epilepsy, who, in connection with the fits, is subject to attacks of acute excitement with intense irritability and violence. During these attacks he is placed in a small ward in the old building reserved for the management of noisy and excited cases. In the confused and exhausted state following the excitement—a time when he is best in bed—he is in the sick-room, and can be suitably nursed; while in the quiet stage of his mental round he goes to one of the ordinary wards.

I wish to guard against giving the impression that I consider the step taken at the Fife Asylum as something entirely new. I have been informed that in the Worcester Asylum twenty years ago several of the male wards were partly supervised by females; and I know that in a number of asylums female nursing has for several years past been more or less in use in the male sick-room, though usually in combination with some assistance by attendants. The points on which I wish to lay stress are: (1), the advantage gained by having the male sick-room so placed that it can be suitably administered by the female staff; (2), the proof that it is possible to manage an asylum male sick-room successfully with female aid alone, just as is done in the male wards of an ordinary civil hospital; and (3), the great benefit, both to the patients and to the staff, of utilising female nursing as much as possible in the care of our sick male insane cases.

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*The Cairo Asylum.—Dr. Warnock on Hasheesh Insanity.*  
By. T. S. CLOUSTON, M.D., Edinburgh.

In the year 1879 Dr. Urquhart and Mr. W. S. Tuke each wrote an account in this Journal \* of his visit to the asylum at Cairo, which was then, and is now, the only institution for the treatment of the insane in Egypt. Their impressions were most unfavourable. Dr. Urquhart says, "there is" in Cairo "no more melancholy and degrading fact than the common madhouse." "The Conolly of Egypt has still his work to do." "The whole place is so utterly beyond the ken of civilisation that it remains as hideous a blot on the earth's surface as is to be found in the Dark Continent."

\* April number, 1879.

Mr. Tuke said:—"The place looked intensely squalid;" "with regard to the means employed in Egypt for the cure of insanity, I find that bleeding is the chief therapeutic remedy." No statistics could be obtained by either visitor. Since then the institution has been removed from its old site in a suburb of the city out to a palace and stable of the late Khedive Ismail at Abbasiyah, about three miles north of Cairo. The weakness for palace building of his late Highness was one well-known feature of that sumptuous ruler's character. What to do with those gorgeous buildings was one of the difficulties of the English Government when it assumed the control of the country. One in which 200 of his wives and concubines had been magnificently housed is now turned into the zoological gardens. Where the fair Circassians lounged is the habitation of fierce beasts of prey. The marble walks laid out for the delicate feet of those ladies are now trodden by the gaping crowds of holiday Cairene visitors. Another palace has become a most sumptuous hotel. Another contains the priceless treasures of Egyptian antiquity at Gizeh. Several have been turned into soldiers' barracks, and many more are mouldering to decay. The insane of Egypt were not thought worthy of the best of those palaces. What was good enough for his Highness's horses was surely good enough for Egyptian lunatics. So to them was assigned the stable palace with its accessories. No doubt it was a great improvement on its predecessor, but under Egyptian management and control it was far from being an ideal hospital for the insane. Soon after Rogers Pasha was put at the head of the Sanitary Department, in which the treatment of the insane is merged, he saw that native management of the asylum was wanting in initiative, in honesty and in intelligence. So he got permission to appoint a British Medical Superintendent, and he has succeeded in investing him with large powers. Fortunately he secured the services of Dr. Warnock for the position. That gentleman's first Report, for 1895, now lies before us, and a most interesting document it is. We know from a visit we lately paid to the institution that the facts are true, and that the revolution from psychiatric darkness into light that has come about is very modestly understated. No man who has the welfare of the insane at heart but must rejoice that a great work is being thus carried out in behalf of the most helpless of mankind. Dr. Warnock's difficulties were at first enormous. He found dirt, disorder,

and dishonesty rampant, neglect of the patients the rule, and modern scientific treatment of mental disease conspicuous by its absence. The patients were severely drugged, badly fed, insufficiently exercised, and vigorously restrained by means of the camisole. In and about one bed—a fair specimen of the rest—he counted 3,000 bugs, lice, and fleas, and now he fines the attendant in charge a piastre for every bug that is seen! In the year 1894 the death-rate was 33 per cent.; in 1895 it fell to 16½ per cent. on the average numbers resident, and in the last half of 1895 it fell one-third as compared with the first six months of that year. It must be kept in mind that the death-rate of the city of Cairo is about 40 per 1,000, or more than twice that of London. Organisation and order has been introduced everywhere. An almost entirely new and better staff has been engaged. When Dr. Warnock went there no female nurse could read the number on her ward door nor tell the time of day from the clock. Punctuality was unknown. There was no employment for either sex. Now we saw a very large number of men and women usefully at work. Noise by night and day has vastly diminished. Dr. Warnock says:—"Regularity and order are of slow growth, but in the end must prevail." Parasites and the tubercle bacillus and the diseases they cause, have afforded the subordinate medical staff their chief employment, but Dr. Warnock looks hopefully forward to the time when a thorough mental and bodily examination of each case, systematised case-taking and the use of scientific methods, will bring his hospital up to the level of the British standard. The dietary has been improved in quality and service. There were 526 patients admitted in 1895, while the average number resident was only 465. We believe no such proportion of new cases to resident population exists in any asylum in Europe. This is not one of the least of the difficulties of proper treatment and management in the Cairo Asylum. Few of us would like to face such a yearly influx into our institutions. There is far too little land attached to this asylum, and it is too close to a public road. The structure and arrangements of the building fall far short of our European modern standard. Yet Dr. Warnock works on hopefully and successfully. He has to be doctor, steward, architect, clerk of works, and general manager. And all this with a staff of semi-civilised Arabs, scarcely one of whom he can trust as we trust our kitchen-maids! Let

any man in Great Britain who is discontented with his asylum and his staff go to Cairo and spend a day with Dr. Warnock, and he will become profoundly thankful for his privileges. In his isolation from professional stimulus, with his stable-palace and its glaring structural defects, with his stolid Arab staff and his Arabian desert without a blade of grass as an outlook, he deserves our sympathy and admiration for what he has accomplished in his year of office, and for the pluck with which he faces his task. No one but an enthusiast could have done as much. All English officials in Egypt need to be young, healthy, hopeful, and tough. Their work takes a lot out of them.

Dr. Warnock has some interesting facts in regard to hasheesh and its mental effects. Of his 253 admissions in the *last* half of 1895, 40 were put down to the abuse of hasheesh, and 40 more to the combined effects of this drug and alcohol. Of 80 cases only five were women. In 41 per cent. of all his male patients hasheesh alone or combined with alcohol caused the disease, while in only seven per cent. of his female patients was this the case. After stating that the habit of smoking Indian hemp is widely prevalent in Egypt, he asks: "Is there a form of insanity produced by this habit so frequently occurring or of so peculiar a type that it can be demonstrated by asylum statistics? And is hasheesh a potent factor in the production of insanity in Egypt?" His conclusions are: "1. I have no doubt that in quite a considerable number of cases here hasheesh is the chief, if not the only, cause of the mental disease. 2. I doubt very much if hasheesh insanity can be at present diagnosed by its clinical characters alone. Many hasheesh cases recover almost immediately on their admission, an abstinence from the drug being in such cases followed by a cessation of the morbid symptoms." This sudden and rapid recovery is the most pathognomonic symptom. He classifies the usual types of hasheesh insanity as being:—

"a. *Hasheesh Intoxication*.—An elated, reckless state, in which optical hallucinations and delusions that devils possess the subject frequently exist. Sometimes the condition amounts to a delirium, which is usually milder, more manageable, and less aggressive than that of alcohol, and exhibits none of the ataxic phenomena of the latter. Recovery takes place in a day or two or less, and the patient usually recognises the cause of his excitement." In con-

nection with this "intoxication" Dr. Warnock asks if the subject of it is to be held responsible for crimes committed in this state or not?

"b. *Acute Mania*.—In this type terrifying hallucinations, fear of neighbours, outrageous conduct, continual restlessness and talking, sleeplessness, exhaustion, marked incoherence and complete absorption in insane ideas are the prominent symptoms. Such cases last some months, and do not always recover."

"c. *Weak-mindedness*—with acute outbreaks after each hasheesh excess. These cases are very numerous. While in residence such patients are quiet usually, and well-behaved, and only betray the impaired state of their brains by being over-talkative, easily pleased, lazy, anergic, excitable on small provocation, unconcerned about their future, and willing to stay in hospital all their lives. They show no interest in their relatives, and only ask for plenty of food and cigarettes. After being discharged such cases soon return in a condition of excitement—in fact in a mild form of type b. They then talk rapidly and rush about, pouring torrents of abuse on those near them; curse and rave on slight provocation; are sleepless, and for ever moving in an aimless way; are urgent to be released. They deny the use of hasheesh at one moment and boast of its wonderful effects the next. Besides these types there are numbers of cases of chronic mania, mania of persecution, and chronic dementia alleged to be produced by hasheesh, but I have no means of verifying these allegations." Dr. Warnock then quotes some of the conclusions of the "Indian Hemp Drug Commission" of 1893-94. "Its moderate use has no physical, mental, or moral ill-effects whatever." "Its excessive use injures the physical constitution, and may cause dysentery and bronchitis. It tends to weaken the mind, and may cause insanity sometimes. It induces mental depravity and poverty, but rarely crime. The injury caused by excessive use is confined almost exclusively to the consumer, and scarcely affects society." The Commission thought that careful inquiry reduced the proportion of real hemp drug cases. "Of 222 cases of insanity ascribed to hemp drugs in the Lunatic Asylum statements of 1892, only 98 are found on careful inquiry by the Commissioners to have any connection with them. The result is that of the whole number of cases admitted to lunatic asylums (in India) in that year only 7·3 per cent. can be ascribed to hemp drugs, and if

cases in which hemp drugs have been only one of several possible causes are omitted, the percentage falls to 4·5. . . . Hemp drugs cause insanity more rarely than has popularly been supposed, and the resultant insanity is usually of a temporary character and of shorter duration than that due to other causes." Such are the latest words in regard to hasheesh and its insanity.

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*Torquato Tasso and his Biographers.* By WILLIAM W. IRELAND, M.D., Mavisbush, Polton.

(Continued from page 493.)

While at Belriguardo Tasso wrote a letter to the Cardinal, who directed the Inquisition at Rome complaining that the Inquisitor at Bologna had made too little of his confessions, and that he had granted him absolution rather as to a lunatic than to a heretic. He actually proposed to come to Rome to be accused in serious form. And not only did Torquato suspect his friends of denouncing him to the Inquisition, but he also accused them of heretical opinions, perhaps founded on some expressions they had used in familiar conversation. The Duke of Ferrara had, indeed, reason not only to be annoyed, but even to be seriously alarmed, for, though the Inquisitor at Bologna took a sensible view of Tasso's revelations, it was by no means certain that the Inquisition at Rome should look upon the matter in the same light. To a shrewd man who took Tasso's whole conduct into consideration he might seem deranged; but the poet possessed a wonderful power of vivid letter writing, and could make his fancies wear plausible shapes. Then the Duke's own mother was known to have been a favourer of the doctrines of Calvin, and some of the taint of heresy might be supposed to cling to Alfonso himself. He had enemies at Rome, and nothing is more credulous of evil reports than hatred. Perhaps they might favour the accusations in the hope of dispossessing him of his principality and causing it to revert to the Papal States, as was actually done after his death. About the same time Torquato wrote to his friend Gonzaga, "Either I am not only of a melancholy humour, but as it were mad, or I am too cruelly persecuted." After ten days' stay at Belriguardo Alfonso sent Tasso back to Ferrara to be treated by his own physician. According to the pathology of the times melancholy was owing to humours rising to the brain. To expel these purgatives were the proper remedy. The poet was far

from being submissive to treatment, and if the doctors did him no good they could always defend themselves by saying that their patient did not carry out their prescriptions. Tasso was kindly received at the convent of the Franciscans at Ferrara, which he repaid by accusations founded upon his ever-brooding suspicions. At another time he avowed his intention of becoming a brother of the Order.

On the 27th of July, disliking the surveillance to which he was subjected, he escaped through the city gate. Managing to elude the horsemen who were sent to pursue him, Tasso appeared in a wretched condition at Poggio, a mansion belonging to the Princess Leonora. The Count Lambertini, who was in charge of this place, sent word to the Princess. Tasso suspecting that he was watched again took flight. How he pursued his way is not certainly known, but after encountering many hardships and dangers he appeared in the dress of a shepherd in his sister's house at Sorrento. Cornelia had been bestowed in marriage by her mother's relations to a gentleman called Marzio Versali. This match had displeased her father, but in the end kindly relations had been resumed. Cornelia's life had not been without misfortunes, and she had even applied for assistance to Torquato in his flourishing days at the Court of Ferrara. She was now a widow, living with her five children. Torquato introduced himself as a messenger from her brother, whom he represented to be at that time in distress and danger. Cornelia showed such visible signs of grief and anxiety that his suspicions about his reception melted away, and he revealed himself as her brother whom she had not seen for twenty-three years. Fearful of his getting into trouble with the authorities at Naples, Cornelia gave out that he was a cousin from Bergamo. With his two nephews Torquato now wandered about that delightful land and revisited the scenes of his boyhood. In this atmosphere of kindness and love the poet's mind seems to have regained tranquillity, though not complete health, as his sister is known to have consulted some physicians of Naples on his account, who disgusted the poet by recommending him to drink salt water. Soon the old unrest returned; he tired of his quiet life with a widow and her children, and longed again for the brilliant Court of Ferrara and the distinction he could not claim under a borrowed name. He wrote letters to the Duke and the Princesses. From Leonora there came a cold reply, and none from Alfonso and Lucretia.

On the 10th of February he was back to Rome, where he found a kind reception in the house of the Duke's agent, whence he sent letters in a very humble strain to Alfonso and the Princesses imploring to be again received into his service. The Duke sent a message that if Tasso wished to return to Ferrara he was content to receive him on condition that he should recognise that he was deranged, and that his suspicions and fancied persecutions came from his humours. This he might conceive from his delusion that he, the Duke, wished to take his life, although he had always favoured him. Had this been really his desire the thing would have been easy of execution. He should make up his mind before he came to consent to allow himself to be cured by the physicians of his humours. The Duke promised to forget the past, but if when he came Tasso did not allow himself to be cured he should be expelled forthwith from the State.

Torquato's pride must have been much abated when he accepted so cold an invitation, but he had found the Duke the most liberal of all his patrons; besides he had in his possession the manuscript of the poem which was to give its author immortality. Some Italian scholars have indeed insisted that we are indebted to Alfonso for the preservation of the *Jerusalem Delivered*, which he refused to give up to the poet, who was spoiling it by his incessant corrections and alterations.

In the summer of 1578 Torquato was again at Ferrara, but not to live over again the happy days of past years. The Duke would not give up his manuscripts; the Princesses would not receive him so readily as before. His suspicions and fears soon found grounds on which to dwell, for he had real enemies as well as fancied ones. He complained that the Duke no longer encouraged him to write verses and wished him to lead an idle life; to become a fugitive from Parnassus in the gardens of Epicurus. In one of his letters Tasso actually says: "Without regard to my health and life I voluntarily aggravated my evil by the disorders of immoderate intemperance so as to put my life in danger." For this he assigns the absurd reason that he wished to gain the favour of the Duke, and to accustom himself to despise health and pleasure, recollecting that it was the opinion of some of the best philosophers that vigorous health is dangerous to virtue, as it assists the body to tyrannise over the mind. Soon Torquato desired to leave Ferrara. This time

he did it with the knowledge of his patron. He now sought the hospitality of the Duke of Mantua, the old friend of his father and his own. At this time Margaret Gonzaga, the Duke's daughter, was making ready to go to Ferrara, to become the third wife of Alfonso. The poet missed the attentions which he expected. With the sale of a ruby ring and a gold collar he raised some money and went to Padua. We next find him at Venice, where Maffeo Veniero thus describes his state in a letter to the Grand Duke of Tuscany, dated 12th July, 1578 : "Tasso is here inquiet in mind, and although I cannot say that he is of sound mind, yet the symptoms which he shows are rather those of affliction than of madness. Of his humours the chief one is that he would like to be in the service of your Highness, asking no other provision than as much as will enable him to live in a retired and simple manner. The other is that he wishes the Duke of Ferrara to restore his book to him, of which he has not a copy. On these two subjects he is perpetually talking, and he allows his imagination to run away with him."

Tasso next sought quarters with the Duke of Urbino, where he was received with open arms. He wrote to his sister in grandiloquent terms that he had at last found a reception worthy of his merits. The physicians having prescribed a cautery as a remedy for his mental disorder, a young lady of the Court, Lavinia della Rovere, applied the bandages with her own fair hands. But it was now impossible to keep the poet long content with any situation. He expected on every occasion to be treated with the most marked distinction, and resented any real or fancied slight. Like Rousseau, he was ready to imagine that everyone was thinking of him, and that even his best friends were offended at him or were plotting to injure him. His acute reasoning powers were at the service of his folly to justify his conduct, so that those who were near him got wearied of his perversity, while those who could not watch him closely were disposed to credit his complaints. The rumour that the celebrated poet had become deranged was now widely diffused, and excited a species of curiosity about his doings which made him wroth. His pen was still busy, the sweetness of his verse seemed in no way abated; his conversation had a charm for people of culture, and his pathetic tales of suffering and wrongs excited interest and compassion. Suddenly, without telling anyone of his design, Tasso quitted Urbino and set out for

Turin. Owing to fears of the plague in Provence, newcomers were looked upon with suspicion. He reached Turin on foot, and in such a sorry condition that he was denied admission by the guards at the city gate. Angelo Ingegneri, a printer of Venice, at that time visiting Turin, had known Tasso at Rome. Happening to pass that way he recognised him, and made the guard aware of his distinction. The poet sought the dwelling of the Marquis Philip of Este, cousin of Alfonso, who had married the daughter of Charles Emmanuel, Duke of Savoy, and was in command of his cavalry. The Marquis received Tasso kindly, and the Duke of Savoy showed great pleasure in having so illustrious a poet, and offered to give him as liberal a salary as the Duke of Ferrara had done, and to get back his manuscripts. Had this been accomplished, no doubt Rinaldo, the hero of the *Jerusalem Delivered*, would have been an ancestor of the present King of Italy.

The state of mind in which the poet was at this time is shown in a letter written to the Cardinal Albano then at Rome. He expresses the hope that the Cardinal had not taken offence at his suspicions, since without distinction he had suspected everyone. He at the same time begged that the Cardinal should further add the weight of his recommendation to the Marquis of Este, in order that the Duke of Savoy, his father-in-law, should receive him into his service. The Cardinal wrote in reply imploring Tasso to banish his fears and cease to be distrustful of everybody. "God grant," he goes on, "that you may fully know your mistake, and that it may be a lesson to you in future, and this ought to be the case, as upon my honour, I assure you that there is nobody who attempts, or who even thinks to hurt you in any way; but, on the contrary, everyone loves you, and anxiously desires that you may live; such is your singular worth." He advises the poet to be calm and attend to his studies, and resolve to be governed by the physicians and obedient to the counsels of his patrons and friends. For some time Torquato seems to have had a serene interval, during which he wrote several compositions in verse and prose; but he again became uneasy and applied to Cardinal Albano to procure a restitution of his books and writings, and some gift from the Duke of Ferrara, or a permission for him to return to his service. To this Alfonso replied, as before, that he was still willing to receive Tasso, provided he would allow himself to be treated by the physicians, and would abstain from those reproachful

expressions which during his last residence he had used to some of the courtiers. The Marquis of Este tried to dissuade him from leaving Turin, and promised that he would take him with him in the spring to visit Alfonso; but nothing could prevent him again seeking Ferrara. He was there on the 21st day of February, 1579, at the very time when the whole city was holding festival to give a joyful reception to the bride of the Duke. Tasso, however, did not consider this any reason why he should not be received with distinction, especially as he had composed a beautiful pastoral to read on the occasion. Nevertheless, it does not appear that he was quite neglected. We know that he was received into the mansion of the Cardinal of Este, at a time when all the houses in the city were filled with guests. The sensitive poet, coldly received as he thought by his friends, and derided by enemies, and still denied access to his manuscripts, went to the palace of Cornelio Bentivoglio,\* where he found the Countess and other ladies. He now broke out into violent expressions against the Duke, his newly-married wife, and the whole family of Este. Then, in a fury, he hastened to the palace, demanded speech of the Duchess, to solicit that she should get his manuscripts returned to him, that she should save him from the enemies who persecuted him, wished him declared a heretic, wished him dead. The ladies of the Court tried to soothe him, which only provoked fresh invectives and insults. The disturbance increased till the Duke, informed of what was going on, ordered Tasso to be taken to the Hospital of St. Anne, near the palace, where he was put in chains.

This catastrophe happened about the 12th of March, 1579, and, as Dr. Black observes, the same year and perhaps the same month, in which the most illustrious poet of Italy was confined as insane, another epic poet finished, in an hospital at Lisbon, his career of glory and of misery. This was Camoens, the author of the *Lusiad*. It is likely that the Duke, with more pleasant matters to engage his attention, took little trouble to direct how Tasso should be treated. The ordinary methods of dealing with the insane in those days were rough and hard. Their violence should be tamed by darkness and starvation, or quelled by blows. Shakspere in *As You Like It* gave the current view: "Love is merely a madness; and, I tell you, deserves as well a dark house and a whip, as madmen do; and the reason why they

\* Solerti, *Vita*, Vol. i., Cap. XVI., p. 309.

are not so punished and cured is, that the lunacy is so ordinary, that the whippers are in love too."

No such indignities were offered to the unfortunate poet, though for a time he was kept in strict confinement. His mental derangement did not prevent him being fully aware of his own misery; indeed, with his powerful imagination and highly cultivated presentive faculties, the hardships which surrounded him were augmented by bitter regrets from the past, and vivid fears for the future. Shortly after his imprisonment he writes to his faithful friend Gonzaga, that after all his bright hopes of gaining eternal fame from his poems and finishing his life in honour and glory, he now only desires like common men to lead a life of liberty in some poor cottage, if not in health, for that may no longer be, at least free from such distressing sickness, if not honoured at least not abominated. "I do not fear," he goes on, "so much the greatness of the evil as its duration, which appears horrible to my thoughts, especially as I know that in such a state I am neither fit to write nor to work. The fear of perpetual imprisonment and also the indignities used towards me much increase my melancholy. The squalor of my beard, and hair, and dress, and the sordidness and filth much annoy me, and above all I am afflicted by solitude, my cruel and natural enemy, from which even in my good estate I was so troubled that I went seeking company at unseasonable hours. Sure am I that if she who has so little corresponded to my attachment, if she saw me in such a state and in such affliction, she would have some compassion on me." Dr. Black reproaches Serassi with disingenuousness in suppressing this last sentence, which seems to refer to the Princess Leonora. It is certain that even during Torquato's life there was a widespread rumour\* that the cause of his mental alienation was an unhappy passion for this lady. His long imprisonment was thought to be owing to the deep offence taken by Alfonso at the presumptuous love of Tasso, which he was said to have shown by kissing the Princess at some entertainment.

Black tells us that "not only Milton, but every writer since the time of Manso (whether Italian or foreigner), by

\* Black, Vol. ii., p. 78, tells us that J. Eliot in his *Orthæpeia Gallica*, printed in 1593, speaking of our poet, says, "This youth fell mad for the love of an Italian lass descended of a great house, when I was in Italy." A similar report was made by Bartolomeo del Bene, a Florentine residing at the Court of Henry III. of France. Solerti, Vol. i., p. 378.

whom Tasso is mentioned, continued to attribute his misfortunes to his passion for Leonora.' It was a further growth of this legend that the poet's insanity was an invention of the Prince of Ferrara to serve as an excuse in the eyes of the world for the cruel treatment to which the victim of his pride was subjected, or if Tasso's mind ever wandered, that it was owing to his sufferings during his imprisonment. The truth is Tasso always thought more of his own fame than of any woman, and at this time his mind was engrossed with other cares. He had now known Leonora for about fourteen years; he was thirty-five and she was forty-two. The Princess died about two years after. A volume of verses celebrating her virtues and bewailing her death came from the rhymers of the Court, but it does not contain anything from the pen of the great poet who, through the association of their names, has saved that of Leonora from oblivion.

A gloomy vault in the hospital of St. Anne's is still shown to visitors as the place in which the poet was confined. Solerti proves that this is an invention no older than the present century, and that the place was nothing else than the old coal cellar of the building. Tasso complained bitterly of the rigid and even cruel manner in which he was treated by the Prior of St. Anne's, Agostino Mosti, adding that he received affronts from the attendants. He also accused the Prior of using magical arts against him. He wrote piteous letters to the Duke asking forgiveness of the insulting expressions he had used, which he said never came from his heart. In the month of May he was shifted to better quarters. In the court register there are entries for butter and eggs regularly supplied to *Signor Tasso ammalato*, and also for furniture; his clothes, books, and other belongings were sent to St. Anne's, where he seemed to have had two rooms.

Tasso confesses having struck one of his keepers, but so much seems to have been made of it that we may judge that he was seldom violent. At first he was in a state of deep dejection. "My head," he wrote, "is always heavy and often painful; my sight and hearing much impaired, and all my frame is meagre and exhausted. My mind is sluggish to think; my fancy slow to imagine; my senses dull to convey the images of things; the hand is heavy in writing, and the pen seems as if it shrunk from its office; in everything I am benumbed and plunged into an unwonted

stupor." His mind seems to have become more settled at the end of June, 1579. He now received visits from his friends, and busied himself with his poetical compositions. Amongst these are some beautiful and pathetic canzoni to Alfonso and his sisters imploring to be set free. He wrote to many powerful and distinguished personages in Italy asking them to intercede for him with the Duke of Ferrara, but all in vain.

When a man of sufficient worth to excite envy falls into straits, there are always people malicious enough to rejoice in his misfortunes, and generally others mean enough to make profit out of them. In his fastidious desire to get every blemish removed from the *Jerusalem Delivered* he had sent copies all over Italy for the emendations of critics, not without dire misgivings that the sheets might fall into unworthy hands, and so it came about that one Malaspina, a man of notoriously bad character, had got hold of a truncated copy which, hearing of Tasso's imprisonment, he, flying from the gallows at Florence, ventured to publish at Venice in 1580. Thus after his three years' fretting and troubling with the critics the helpless prisoner of St. Anne's saw his great poem given to the world in an incorrect and mutilated form. In this matter, however, Tasso's friends were able to help him. Angelo Ingegneri, the printer of Venice, had in 1579 made a copy of the *Jerusalem Delivered* at Ferrara in six nights. He now brought out two editions, one in Parma, the other in Venice, which, as stated in the preface, were revised by the author. The work spread with a blaze of glory. In 1581 there appeared seven editions, and six the next year. From every part of Christendom men of culture and literary taste turned their eyes to the Asylum of St. Anne's. Had Tasso published his poem when it was completed three years before, he might have gained large sums. As it turned out, while publishers and friends were making money out of his work he did not receive a farthing. The *Aminta* and several of his prose works now also became the spoil of the printers.

It was about this time that Michael de Montaigne visited Tasso, and thus wrote of him in his essays\* "I had more vexation than compassion to see him at Ferrara in such a piteous state, surviving himself, forgetting both himself and his works, which without his knowledge, and certainly without his seeing them, have been published incorrect and out

\* *Essais*, Liv. ii., Chap. xii.

of shape." Tasso, who was one of the openest of men, describes some symptoms significant of mental derangement.

In a letter to his friend Maurice Cataneo, Secretary to Cardinal Albano, dated 18th October, 1581, he relates the disturbances which he experienced in studying and in writing. "Know, then, that these are of two sorts, the human and the diabolic. The human are cries of men, and particularly of women and boys, and derisive laughter, and divers voices of animals which are excited by men to disturb me, and noises of inanimate things which are moved by human hands. The diabolical are enchantments and witchcraft, but of the enchantments I am not certain, because the rats, of which the chamber is full, and which seem to be possessed by demons, may be the cause of the noise, and some other sounds which I hear may be referred to human artifice. Nevertheless, it appears to me to be quite certain that I have been bewitched, and the operations of witchcraft are very powerful. I recognise that when I take a book to study, or a pen to write, I hear voices sounding in my ears, among which I distinguish the names of Paolo, Giacomo, Giralomo, Francesco, Fulvio, and others, who perhaps are malicious persons and envious of my quiet, and if they be not such they would act courteously to remove the bad opinion which I have conceived of them on account of their evil arts. At that time also, more than in any other, many vapours ascend to my head, often before eating, so that my ideas are much disturbed." He further observes that in addition to these impediments there are often internal ones. He is moved to extreme anger, and tears up his letters before they are finished. Though his memory has been greatly weakened, he thinks that after the use of cathartics and such nourishing food as would not increase the melancholy humours, he would be able to accept the office of Secretary, or if he could get enough of money from the sale of his writings to keep him, he would think of nothing but his studies, and this not so much from the hope of glory as from the desire of quiet.

In 1583 Tasso wrote Jerome Mercuriale, Professor of Medicine in the University of Padua, asking his advice. He thus describes his disorder: "For some years I have been infirm of a disease the nature of which is unknown. Nevertheless, I am convinced that I have been bewitched. But whatever is the cause of my malady, these are the

effects: Gnawing pain in the intestines and bloody flux; sounds in the ears and head, sometimes so strong that it seems as if there were a clock within it. Images of various things, always displeasing, so disturb me that I cannot apply my mind to study for three or four minutes, and the more I strain my attention the more I am distracted by various imaginations, and sometimes by violent bursts of anger, suddenly excited by the divers phantasies which arise in me. Besides, always after eating my head fumes beyond measure and gets very hot, and in everything which I hear my fancy mingles some human voice, so that it appears that inanimate things speak to me, and my nights are disturbed by various dreams. Sometimes I am so carried away that I seem to have heard, or if I may not say I have assuredly heard, some things which I have communicated to Father Marco a Capuchin, the bearer of this letter, with other fathers and laics with whom I have spoken about my malady, which being not only great but most painful, has need of powerful remedies, and although no better remedy may be expected than what comes from the grace of God, who never abandons those who firmly believe in Him," nevertheless he would be grateful for advice from the learned physician. Mercuriale advised a cautery in the leg, that he should drink only broth, and abstain entirely from wine. He promised to send a conserve which had much efficacy to sweeten the blood and allay the fumes, so that they should not rise to the head. The poet considered these prescriptions insupportable, but was willing to try the conserve if it had a good taste. There were times when the excitation of his nervous system abated, his mind became calmer, and his powerful intellect exerted itself against the delusions that beset him. In a prose work called *The Messenger*, written in 1580, Tasso holds a dialogue with a spirit, who pretends that he has paid visits to him for four years. The poet expressed his doubts whether the apparition had a real existence, which so much offended the spirit that he said: "Were it not that the charge of thee is entrusted to me by one whom I must obey, I should even be disposed to leave thee." Torquato, still incredulous, observes that "Though this be not the imagination of a man who sleeps, it may be that of a man who wakes, but is a prey to phantasy. There are certain alienations of mind which no less than dreams can represent falsehoods as truths—nay, can effect this with

still greater energy, since in sleep only the sentiments, in madness the whole reason is chained." Better had it been for the poet had he kept the strength of mind to apply such principles. In another letter to Cataneo, written at the close of the year 1585, the poet tells his friend how one of his letters had disappeared, no doubt carried away by a Folletto or sprite who stole his things, set on by some magician. "Of this, indeed," he goes on, "I have many proofs, especially from a loaf of bread taken visibly away from before me an hour before sunset, and a plate of fruit taken away the other day when that young Polish gentleman, worthy of so much admiration, came to see me." Gloves, letters, and books taken from locked chests were sometimes found in the morning on the floor. Other things which went a-missing when he was absent he sagaciously supposes might have been taken by men who, he verily believes, have the keys of all his trunks. Believing in witchcraft and devils, like most men of those times, Tasso was disposed to assign anything he could not readily explain to their agency, and some of the inmates of the hospital took advantage of his simplicity. Further on in the letter he gives a vivid description of the disturbed state of his nervous system.

"Besides these miracles of the Folletto there are many nightly terrors, because even when awake it seemed as if I saw flames in the air, and sometimes flashes of light, so that I dread the loss of sight, and sometimes sparks visibly issue from my eyes. I have also seen in the middle of my tent-bed shadows of rats, which by natural reason could not be there. I have heard frightful noises, and often in my ears I hear sounds of hissing, tingling, ringing of bells, and the ticking of a clock, and often there is a beating for an hour, and when asleep it appeared to me as if a horse threw himself upon me, and I felt myself much relaxed. Amidst so many terrors there appeared to me in the air the image of the glorious Virgin, with her Son in her arms, in a halo of coloured vapours, so that I ought not to despair of her grace. And though this might easily be a phantasy, because I am frenetic and always disturbed by various phantasms and full of endless melancholy, nevertheless, by the grace of God, I can sometimes *cohibere assensum*, which shows the operation of a sound mind, as Cicero observes, whence I may rather believe that it was a real vision of the Virgin."

Solerti quotes two physicians who knew Tasso's case by

report. One mentions the necessity for his detention and his perpetual conversations with a spirit (*cum numine quodam*). The other describes his hallucinations and melancholy. In reply to a petition from the Cardinal Albano that as soon as possible Tasso should be allowed his liberty, the Duke replied through his minister\* that leave had been given to Tasso to take the air in the gardens and to go about Ferrara, but this had done him no good. He had got so furious that it was difficult to get him back to the hospital. The Duchess Lucretia had taken him to Belvidere, but he had terrified her by his violent behaviour. He, Alfonso, at the intercession of the Duke de Joyeuse, had allowed the poet a little more liberty, and had admitted him to his presence, but he seemed to have a brain weak and unstable, and he was oppressed with melancholy, and it might be said only had lucid intervals when he was writing poetry, which he did through a certain natural inclination. The doctors of Ferrara had despaired of his recovery.

Torquato's old friends did not forget him, and his poems gained him new ones. Men of distinction came to visit the poet of the Crusades within the walls of St. Anne's, and he received presents of books and money, much of which was stolen from him. This growing fame no doubt inclined the Duke to pay greater attention to his unwilling guest. Yet one of the most devoted of the poet's admirers—the Father Angelo Grillo—was constrained to admit that Tasso's imprisonment was rather due to the affection than the hardness of the Prince. Thus while learned academies were hotly disputing whether Ariosto or Tasso were the greatest of the Italian poets, while the *Jerusalem Delivered* was read throughout Europe, even in England, so slow to recognise the genius of her own great dramatist, Tasso was quoted as the third great epic poet, years came and passed away, and he was still a wretched prisoner in the asylum of St. Anne's. He had gained the glory which he sought, but it came to him embittered by the pity and contempt of those in whose power he was placed. His fine imagination had become his torment, and his wonderful capacity to recognise the beautiful and picturesque was matched with a keen sensibility to suffering.

Tasso sent many pathetic petitions in prose and verse to Alfonso, and was unwearied in stirring up his friends to intercede for him. He wrote to all the Princes of Italy, to

\* See the two letters of John Baptist Laderchi in Solerti, *Vita*, Vol ii., p. 217.

the Magistrates of Bergamo, to the dignitaries of the Church, to the Pope, to the German Emperor, imploring their help to set him free.

It is likely enough that the Duke, known to be very jealous of his power and position, should be offended by appeals made over his head to these potentates. It may in some degree account for his obstinacy in resisting so many petitions to try whether more liberty could not be allowed to his poor prisoner. It seems that there was some improvement in Tasso's mental state. His religious terrors and doubts had sunk into the quiet of implicit faith, and his fits of excitement were fewer and less marked. This may have made Alfonso at last to yield to the entreaties of Vincenzo, son of the Duke of Mantua, and allow Tasso to leave Ferrara in his keeping. He was thus set free, on the 5th of July, 1586, after a confinement of seven years and two months.

When one recalls the long series of learned biographers and historians who have followed one another in proclaiming Tasso as the victim of the pride or resentment of the Duke of Ferrara, he may well conceive that there is a form of lunacy which consists in readily harbouring the notion that when persons are treated as insane they are only the victims of perfidious relatives, curators, or doctors given to paradox. The need of utterly rooting out this delusion has made not a few passages in Solerti's biography to look hard and unsympathetic. On the other hand the character of the Duke of Ferrara comes brightly out of the accusations so long entertained against him. It looks to us, indeed, as if the restraint put on the unfortunate poet were needlessly severe; but we do not know all the circumstances, and Alfonso acted under the advice of his physicians. Altogether there appears no reason to believe that towards Tasso he ever acted save under the best desire for his welfare. During the remaining years of the poet's life he never required to be deprived of his liberty, yet he never was restored to complete sanity. Solerti shows that now and then there were outbreaks of violent suspicion or unreasonable rage.

At Mantua the kind and delicate attentions of the ducal family and the joy of freedom soothed his troubled mind. For a time everything seemed pleasant. He showed a prodigious literary activity, and had a physician who gave him medicines in confections to strengthen the memory. Though he was allowed to go freely about Mantua Tasso

soon noticed that a watch was kept over his movements. The Duke was bound by an engagement to send him back to Ferrara should Alfonso require it. Tasso's fears and suspicions returned, and one day, hearing that the Duke of Ferrara was expected at Mantua, he took flight and set out on foot for Loretto, to pray for the intercession of the Virgin for his restoration to health. He reached Loretto wearied and penniless, and might have fared badly had a friendly nobleman from Mantua not been there at the same time, who lent him money and introduced him to the Governor of the town.

The remaining eight years of Tasso's life were passed wandering about Italy in search of a patron who would give him lodging, salary, and entertainment in his palace in return for laudatory verses and dedications of his books. The same story is repeated again and again. The poet is received with distinction, sits at table with princes and cardinals, and holds converse with the literary men around. Then as the marks of admiration subside, and he tires of the situation, he conceives that he is slighted, or suspects that plots are being hatched against him, and precipitately departs, often leaving books and other effects behind him, which cause him much distress in reclaiming. The intermittent fever returned again and again, and he had several serious illnesses. He was not careful of the sums occasionally bestowed upon him by his friends or gained by his venal verses, and sometimes got into great straits. When none of the palaces of the great were open he would find a lodging in a monastery, and on one occasion the greatest of the name was reduced to take refuge in an hospital founded at Rome by the Tassos of Bergamo. He wrote and published many works in prose and verse, but though they were read at the time and some of them contain fine passages, none bear the stamp of immortal genius like the poems of his youth. His strangest literary effort was the *Gerusalemme Conquistata*, the *Jerusalem Conquered*, published at Rome in 1593, which was designed to supersede the *Jerusalem Delivered*. Finding that the literary public thought it an inferior poem he wrote a treatise to show that they were mistaken. We have not read this second epic, and are content to accept the opinion of Dr. Black that it was merely a bad copy of the *Iliad* in which Jerusalem takes the place of Troy, the Greeks become the Crusaders and the Trojans the Mahomedans. Roncoroni, who compares the two poems,

tells us that in the *Jerusalem Conquered* there are many fine passages, sometimes more happily expressed than in parallel ones of the *Jerusalem Delivered*.

Though Tasso became estranged from some of his old friends, on the whole we wonder at their fidelity ; nor did he fail to make new ones. John Battista Manso, the Marquis of Villa, enjoyed the double honour of being in his youth the friend of Tasso and in his old age the friend of Milton. The earliest of the biographers of the Italian poet, he has left an affectionate record of his virtues, which we are in danger of forgetting in describing his mental derangement.

Tasso was frequently entertained by Manso in his beautiful villa by the shore of the Bay of Naples, and in the autumn of 1588 he went with the Marquis to visit his feudal town of Bisaccio.\*

The following letter written by Manso to a friend shows that the poet could still enjoy the pleasures of life :—“ The Signor Torquato has become a great hunter and overcomes the roughness of the weather and of the country. We spend the bad days and the long hours of the evening in hearing music and singing. He takes great delight in listening to the improvisatori, whose readiness in versifying he envies. Sometimes we dance with the girls here. This pleases him

\* Solerti argues, *Vita*, Vol. i., p. 613, that the story of Tasso's accompanying the Marquis of Villa to Bisacia and the particulars given in the text with other picturesque incidents, are but a romantic invention of Manso's. Roncoroni, citing the same passages, briefly says that he does not consider that Solerti has proved his point (*Genio e Pazzia in T. Tasso*, p. 48). Out of respect for the learned biographer I give my reasons for upholding the veracity of Manso. Solerti informs us that Modestino affirmed that Manso was never feudal lord of Bisacia, and cited legal documents to that effect. Moreover it appears from letters of Tasso dated Naples that he was in that city on the 6th and 16th of September, on the 24th and 31st of October, and on the 2nd, 3rd, 4th, 9th, 14th and 24th of November.

We know, however, that Manso's right to be lord of Bisacia was the subject of a contested law suit, and Solerti himself observes that some of Tasso's letters to the Marquis were directed to Bisacia, and in the title of his *Poesie Nomiche* Manso is styled *Signor della Città di Bisacia e di Pianca*. The same title is given to him in the frontispiece of Manso's *Vita di Torquato Tasso*, dedicated to the Duke of Urbino, and published with license at Venice in 1621, while Manso was still alive. The claim of Tasso to have a spirit with whom he held converse is made in other passages of his prose and poetical works.

Respecting the date of Tasso's visit to Bisacia, which is fixed by Serassi as occupying the whole of October and part of November (up to the 8th), the time is not definitely stated in Manso's *Vita* (see pp. 138-144 and 195-196). We gather that it was towards the end of the autumn of 1588, and that it did not last long (per non multi giorni) ; thus it may have occupied the days between the 10th and 24th November. Besides, people sometimes date their letters from the place where they have a fixed address, especially if they only expect to stay a short time at the place whence they are writing.

much. A good part of our time we spend sitting by the fire talking, and we often fall into reasonings about the spirit who, he says, appears to him, and he has talked about it in such a way that I do not know what to say nor what to believe."

To some arguments redolent of the demonology of those times, Tasso replied that he believed in the reality of these apparitions from the long time during which he had seen them, and from the conformity which he has always observed in them, a thing which could not continue if the things seen by him were not actual, but the figments of the foolish imagination of his fancy. A similar defence has been made of the visions of Swedenborg. One day Tasso said to his friend :—" 'Since I cannot persuade you with reasons I shall convince you by experience, and shall cause that you with your own eyes see this spirit, about whom you will not lend faith to my words.' I accepted the offer, and the following day as we were sitting by ourselves near the fire he turned his eyes towards the window, and kept gazing so fixedly that he gave no answer when I called him. 'Behold,' he said to me, 'the friendly spirit who tries courteously to talk with me. Lift up your eyes, and you will see the truth of my words.' I directed my eyes thither immediately, but look as hard as I could I saw nothing save the rays of the sun which shone into the chamber through the windowpanes. And while I thus turned my eyes around seeing nothing, I heard that Torquato had entered into lofty reasonings with whomever this might be. Although I heard and saw nobody save himself, nevertheless his words at one time proposing, at another answering, were such as those who were reasoning closely upon some important matter, and from what came from him I easily conceived what the replies were, although I could not hear them." After this converse had gone on for a while the spirit was understood to depart, when Manso goes on :—" Torquato, turning to me, said, 'From this day all your doubts will have disappeared from your mind,' and I replied, 'Rather are they increased, and since I have heard many wonderful things and have seen nothing of what you promised to show me to make my doubts cease.' And he, smiling, rejoined, 'You have seen and heard more of him than perhaps—' and here he stopped."

With the passive consent of the authorities Torquato was allowed to live in Naples, where he commenced a lawsuit

along with his sister for the recovery of their mother's portion, and got an excommunication from the Pope against those who unrighteously withheld it. There was some difficulty in tracing to whom it had gone ; at last a suit was issued against the Prince Avellino, who had become heir to Torquato's maternal uncles. Amongst other means used to delay or impede the proceedings the Prince pleaded that Tasso could not be a plaintiff as he was insane, but this objection was not entertained. Better days seemed now to be dawning upon the unfortunate poet. The Prince of Avellino, after a long litigation, during which Cornelia died, agreed to pay 130 scudi, about £38 of our money, yearly during Torquato's life. Besides this, the Pope Clement VIII. promised him an annual pension of 200 scudi = £59, and invited him to Rome that he might be publicly crowned as poet laureate in the capitol, as Petrarch, a happier bard, had been 253 years before. Tasso was invited to Rome by the Cardinal Cynthia, the nephew of the Pope, to prepare for the ceremony. In his younger days he was fond of the pageantry of Courts, but now he felt that his triumph had come too late. On a friend reading him a sonnet upon the approaching ceremony he quoted a line of Seneca : "Magnifica verba mors prope admota excutit." He asked to be conveyed to the monastery of St. Onofrio, telling the monks he was come to die amongst them. The prior and the monks gave a kind reception to their illustrious guest, but the fever could not be checked. On being told by the Pope's physician that his end was near Tasso gave thanks to God "that He had now brought him to a harbour after so dreadful and tempestuous a voyage." A short time before the end the Cardinal Cynthia\* brought Tasso the benediction of the Pope, and asked if he had any request which they could carry out for his satisfaction. He replied that he desired to be privately buried in the church of St. Onofrio, and since God had not permitted him to complete his poem of the *Creation of the World* he begged the Cardinal that this and all his other works (especially the *Jerusalem*, the most imperfect of all) should be burned. He knew this to be a great favour, as his writings being scattered in many hands it would be a hard task to collect them, nevertheless he hoped the thing was not impossible. He urged this strange request with so much earnestness that the Cardinal, fearing to distress him if he contradicted or refused his petition, answered that if the thing could be done

\* Manso, *Vita*, p. 231.

in any manner orders would be given to put his desire into execution. This was a pretty safe answer to give. We are told that Virgil prescribed in his will that the *Aeneid* should be burned, as he did not wish it to go to the world without farther correction, and perhaps Augustus could have laid hands upon every existing manuscript of the *Aeneid*; but how could any man collect all the copies of the *Jerusalem Delivered*, which were already scattered over the whole world from above twenty editions? He expired on the 25th of April, 1595, aged 51 years. His tomb is still to be seen in the church of St. Onofrio.

The life of Torquato Tasso falls into three periods. In the first we have a young Italian poet, brave and beautiful, going forth in the full enjoyment of his fine gifts and the pleasures of the world, but much higher than a mere voluptuary, seeking the loftiest themes for his verse like a singing bird in a lovely spring soaring high in the sunshine. Then strange thoughts and cruel suspicions intruded into his mind; a cloud of melancholy overshadowed him; his delirium hurried him into extravagances till he found himself within the dark walls of the Asylum of St. Anne's; outside a fame which extended throughout Europe, and inwardly vexed by mental distress, bodily weakness, frenzied fancies, uttering piteous supplications for freedom, mingled with cries of impotent rage. After seven years the locked doors are opened, and there issues forth a man bearing a famous name, but how much changed from him who wrote the *Jerusalem Delivered*! We do not know the character of a man from his delusions, yet insanity always leaves its stamp upon a man's character. That of Tasso was naturally a lofty one, and even to the last he presented a certain dignity and grandeur like some great man-of-war with bare decks and broken masts tossing rudderless about upon a stormy sea, but still in her giant bulk and lofty build showing proof of a high destiny. Proud of the nobility of his race and prouder of his genius, Tasso looked down upon the vulgar, the plebeian, but he had to bend his head to the great, for his early education and the necessities of life made him a courtier. He could not endure a dull and unpicturesque life. To the end of his days he longed to get back to the Court of Ferrara. His love of fame never led him to envy. He never decries any other poet. Apart from his insane fits of suspicion he spoke ill of nobody, and rather bewailed persecution than resented it. His friend Manso says that Tasso had the entire possession

of all the moral virtues, and goes through these virtues with the precision of an inventory. Solerti treats the description given by Manso as the invention of a fond friend and enthusiastic admirer of his poems, but Manso knew the man, had conversed with him, lived with him, saw his goings out and comings in, and why should he have taken the trouble to make a portrait which bore no resemblance? Solerti's depreciation is taken entirely from a number of letters and other documents describing some striking events in Tasso's life. It is impossible to read his writings without recognising that his heart was warmed by the loftiest piety and by a noble morality. He was naturally courageous, truthful, and honourable in his dealings. The fruits of his genius and labour were snatched from him by others, and his carelessness of money and shifty manner of living often reduced him to painful straits. Poverty and dependence insensibly degrade the proudest, and during the last years of his life Tasso's heaven-born gift of song was turned to shabby uses. He reminds one of the description of an old lion through decay of strength unable to spring upon the stag and pull down the buffalo, seeking to stay his hunger by preying upon rats and other weakly creatures. He was ever seeking for a Macænas amongst popes and princes and cardinals who should give him lodging in their palaces, should admit him to their banquets and give him fine raiment; at other times he was glad to seek a lodging in monasteries and borrow scudi to pay for his pressing wants. He was ready at every marriage, birth, baptism, or death to write a canzone or a sonnet, and his praises were measured not so much by the merits of the person celebrated in his verses as by the expected reward: so much for being compared to Hercules, so much for being compared to the sun, so much for figuring in the *Gerusalemme Conquistata* as a valiant and magnanimous champion. Sometimes the same sonnet dedicated to one person is, after a time, with slight changes, sent to another. But we need not forget that Tasso was not the only poet who sold his praises, and from any large library of English authors of the last century we could pluck out a sheaf of fulsome and servile dedications which can now scarcely be read without disgust. In general Tasso was temperate in his diet, though fond of fine wines. The purity of his manners is striking,\* especially if we consider his wandering and un-

\* Fui da bocca di lui medesimo rassicurato, che dal tempo del suo ritegno in Sant' Anna, ch' avene negli anni trentacinque della sua vita, e sedici avanti la morte, egli interamente fù casto.—Manso, *Vita*, p. 265.

settled life, though perhaps the weakness of his health often saved him from temptation.\* His confessor said that for many of the last years of his life he was guiltless of any mortal sin.†

Tasso's published writings, which fill twelve volumes quarto, give us a measure of his intellectual power. The precocious maturity of his mind is remarkable. There is no other instance on record of so fine a poem as the *Rinaldo* being produced by a young man of eighteen. When we come to his poems all is beauty, order, and regularity. There are no uncouth bursts of passion, no attempt to become striking through the bizarre or the paradoxical. If one were asked from a perusal of the works of Ariosto and Tasso who of the two poets was insane, he would surely say Ariosto. Opinions vary as to the relative rank to be assigned to the *Jerusalem Delivered*. Some critics place it equal to the *Aeneid*, others a little below it. Voltaire in his essay on "Epic Poetry" has pronounced the *Jerusalem* to be the best epic we have. A question like this will not readily be settled. The Latin races have not the same taste in poetry as the Teutonic ones. The Italian language is not much studied in this country, but there are at least eight translations of the *Jerusalem Delivered*. Fairfax's is the most vigorous; Hoole's the most polished. As far as enduring fame goes Tasso might have died at thirty-five; but even after he left St. Anne's he wrote some fine poetry. His poem *Del Mondo Creato* is said to have made Milton conceive the idea of *Paradise Lost*. Tasso was a man of great breadth of mind and varied attainments. A student all his life, he was well acquainted with French and Spanis has well as Latin and Greek. "The prose of Tasso is placed by Corniani almost on a level with his poetry for beauty of diction."‡ He has a flowing and lively style, though sometimes turgid and affected with conceits, and his thoughts are just and penetrating. He was well read in Greek philosophy, especially in Plato's works. In handling philosophical subjects he brings a subtle and penetrating intellect. As a critic he shows much justness of taste; his remarks on the structure of the *Iliad* and *Aeneid* are noteworthy, coming from a master of the poetic art. Throughout all his writings

\* He writes in one of his letters: Non avendo l' animo inclinato a le nozze, ed essendo quasi inabile al matrimonio, e di debole diventato impotente, penso a gli onori ecclesiastici.—Solerti, Vol. i., p. 584.

† Manso, p. 230.

‡ Hallam, *Literature of Europe*, Vol. ii., Chap. VII., Sect. I.

Tasso keeps the same stately and serious style, never passing into the comic. Manso has a collection of his best sayings; none of them are remarkable for wit, not even those which were published before he was born, for some of them are not original.

The tardy admission that Tasso was insane has been gained by the studies of some eminent Italian physicians at last prevailing against the statements of indolent historians and biographers. It is probable that the accumulation of evidence in Roncoroni's work, *Genio e Pazzia in Torquato Tasso*, will prevent any relapses into old errors. Dr. Roncoroni, who dedicates his book to Professor Lombroso, considers the question of the connection of genius and insanity. We have had much loose writing about genius being a neurosis, or that nervous diseases and insanity are more common in the families which produce men of genius. Roncoroni says he appeals to facts; but there are more false facts in the world than false theories, and the apocryphal anecdotes quoted about celebrated men in some popular books on this subject are enough to throw discredit upon the whole conception. Has it ever been proved by exact comparative inquiry that a given number of men of unquestionable genius have in their ancestors, descendants, and collaterals more nervous diseases and insanity than the same number of ordinary men living under similar conditions?

The word genius has been used to cover many kinds of capacities. The genius of a great general, or mathematician, or poet, or historian, or painter, or musical composer, implies the possession of a greater or lesser number of different faculties in vigorous action. The man of genius only possesses in heightened power capacities which all men of sound mind have in lesser degree. We suppose that genius is a born aptitude to perform some things much better than most people can, and that it is largely dependent upon greater perfection of organisation and brain function. Such capacities are no doubt likely to lead to over-strain, and the example of Tasso proves no more than that men of high poetical genius are not exempt from mental derangement. Insanity, however, is fatal to genius and to all high mental and moral endowments. We have seen that Tasso's insanity increased his sensibility to painful impression, weakened his memory, diminished his power of concentration, injured the balance of his judgment, perverted his taste, lessened his self-control and moral rectitude, and removed the restraints in the way of his morbid egotism, or,

in other words, these deductions from or perversions of his normal power were the symptoms of his mental derangement. It is difficult to say in what class of insanity Torquato Tasso should be placed. The older physicians treated it as melancholia, and this is so far correct that the affective faculties seem to have been the first to be deranged and the most disturbed. Corradi makes it to be alternating or circular insanity, and Roncoroni finds in Tasso all the marks of paranoia. This is to me by no means clear. Hereditary predisposition seems wanting, and the marks of degeneration are rather hastily assumed; there does not seem to have been a progressive increase in the malady after the first years of his imprisonment in St. Anne's. Nevertheless some of the symptoms, the exaltation, the delirium of persecution, and the hallucinations and delusions are such as go to make up the picture of paranoia as described by Italian alienists.

The main cause of so prolonged a controversy no doubt was that Tasso's mental derangement never was accompanied by such a complete submergence of the intellectual faculties as is looked for in the vulgar idea of madness. He was subject to fits of delirium which, when they passed away, left him in possession of much intellectual power, and this enabled Manso to say that his infirmities never passed the bounds of delirium occasioned by melancholy. Thus his friend Manso considered him to be sane, though subject to melancholy and occasional illusions; but he lets us know that Tasso's enemies called him mad.

In the life-course of this gifted but unfortunate man the mingling of great talents and great sufferings, high honours and deep humiliations, constitutes the most pathetic biography known to us in the whole history of literature.

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#### CLINICAL NOTES AND CASES.

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##### *A Case of Recurrent Mania.* By JOHN G. HAVELOCK, M.D., Senior Assistant Physician, Montrose Royal Asylum.

The following case of recurrent mania presents many features of unusual interest. The patient is a merchant, who in the course of the last thirty-four years has had twenty attacks of acute mania, and in the intervals has successfully managed a large business. At the present time he is perfectly well both mentally and physically, having

had a long period of immunity from the disorder. This improvement is ascribed by the patient himself, with some degree of probability, perhaps, to his having taken most enthusiastically to bicycling, or, if we may so term it, "become affected with cycling-mania."

*First Attack.*—Mr. A. B., a merchant, was first admitted to Montrose Asylum in 1862. He was then in his twentieth year, had received a good education and was actively engaged in business. He had always shown an excessive literary ambition, and for some time had been composing poetical effusions of a socialistic tendency, making this the sole recreation of his leisure moments. His habits were strictly temperate in all respects, and the family history was good with the exception that three sisters had died of phthisis. On admission he is described as a tall slender lad of delicate appearance, but with no evidence of bodily disorder. He was labouring under a mild form of excitement, but was able to control himself with an effort. Soon, however, he became acutely excited, walking about in a restless manner, holding his head with his hands, staring at himself in the glass, singing, and repeating verses of Psalms for hours on end, though at times he was unduly taciturn. In the course of a few weeks the excitement abated, and he made an excellent recovery after five months' treatment.

*Second Attack.*—Patient kept quite well after the first attack until eleven years afterwards when he had reached the age of thirty. Since his former attack he had continued his literary pursuits, chiefly in secret, employing every spare minute he had with them. His writings had consisted mainly of poetical effusions advocating schemes for effecting some great social reforms. On admission he laboured under suppressed excitement, would speak to no one, and would allow no one to meddle with him. Gradually became restless and talkative as in the former attack, and continued so for several days. Recovered in the course of three weeks.

*Third Attack.*—In November, 1884, he came as a voluntary patient. Was excited, verging on acute mania, abrupt and flighty in manner, conversation spasmodic and disjointed. When alone he recited poetry and danced about, but restrained himself in company, though it evidently cost him a great effort to do so. Was perfectly conscious of his own state, which he termed "hysteria, brought on by over-work." Continued excited for some days and returned home at the end of a month.

*Fourth Attack.*—Five weeks after the end of the last attack Mr. A. B. again sought admission as a voluntary boarder. He turned up at the Christmas ball evidently labouring under suppressed excitement, and in the course of the evening became much worse, continuing excited and restless for some days afterwards. After this improved rapidly, and returned home at the end of the month.

*Fifth Attack.*—This came on in March, 1885. On admission he was restless, incoherent, refusing to answer questions, wandered about aimlessly, fingering pictures, and making odd gesticulations with his hands, singing and repeating verses of Psalms. Gradually recovered after two months' treatment.

*Sixth Attack.*—This began in November, 1885. Was admitted as a voluntary patient, and after passing through an attack similar to the one last described, was well enough to return home after two months' residence.

*Seventh Attack.*—In May, 1886, again came as a voluntary patient. When admitted was able to control himself, but soon became excited as on former admissions. A few days afterwards the attack had reached its height, and he was extremely excited, making extraordinary gestures, throwing himself on the ground and rolling about, shouting and speechifying incoherently, holding his head, blowing, and going through innumerable antics. Had bad nights, was destructive, and too restless to take his meals. In the course of a month had quite recovered.

*Eighth Attack.*—This was a comparatively mild seizure in the winter of 1886-87, which was treated at home with the assistance of a trained attendant.

*Ninth Attack.*—In May, 1887, was again admitted in a state of acute mania, violent and unmanageable. Literally raving, shouting, stamping, declaiming and gesticulating in an extraordinary way. Discharged recovered in the course of six weeks.

*Tenth Attack.*—This commenced in the autumn of the same year. The exciting cause was the marriage party of a friend, and the symptoms first showed themselves at a crowded railway station, where he began declaiming from the window of a carriage, after the manner of a political orator. Recovered after two weeks' asylum treatment.

*Eleventh Attack.*—This attack came on in November, 1887. After passing through the usual phases of excitement was convalescent in seven weeks and sent out on probation. Was more violent and unmanageable than usual during this seizure.

*Twelfth Attack.*—In May, 1888, was again admitted, suffering from an attack of the usual character. Recovered in six weeks.

*Thirteenth Attack.*—Came on in October, 1888, and he was received as a voluntary patient. Attack the same as usual. Recovered in three weeks.

*Fourteenth Attack.*—In December, 1888, was again admitted, and, after the usual period of wild excitement, was sent home on probation at the end of seven weeks.

*Fifteenth Attack.*—Admitted from probation in May, 1889. Convalescent in one month, and again sent out on probation.

*Sixteenth Attack.*—In July, 1889, again admitted from probation. Passed through a fortnight of acute mania, and was sent out on probation at the end of one month.

*Seventeenth Attack.*—Relapsed in September, 1889, and was admitted from probation. Attack rather worse than usual. After two months was again sent out on probation.

*Eighteenth Attack.*—This came on in May, 1891. As on former occasions, was wildly excited, could not answer questions, raved and gesticulated for days and nights on end. Was discharged as recovered after two months' residence.

*Nineteenth Attack.*—Came as a voluntary patient in January, 1892, and after a short period of acute excitement was discharged in five weeks.

*Twentieth Attack.*—The last attack came on in January, 1893. It was similar to those preceding it, and after one month's residence he was discharged as recovered.

*Remarks.*—Mr. A. B. has continued well since January, 1893, and at the present time (June, 1896) he is in the very best of health, both mentally and physically. He appears to have been at all times a man of an exalted, visionary frame of mind, a superficial reader of abstruse and out-of-the-way books, on the subjects of which he delights to dogmatise, without having any real grasp of them. He is extremely introspective, and likes to analyse the mental condition of himself and those around him. He states that when the attacks came on him he felt very happy and hilarious, with quite a plethora of ideas. He felt as if acting a part, and at the end of an attack remembered everything. He felt as if he had been playing the fool, yet had no feeling of depression in the ordinary sense.

Shortly after the last attack, having been advised that a more active life out of doors would, perhaps, tend to diminish the frequency of his attacks, he purchased a bicycle, and since that time he has been a most enthusiastic cyclist. He sends me the following description of his condition at the present time:—

I am as keen on cycling as ever, and am fully convinced that to it, and it alone, I owe the great improvement that has taken place in my health. I do not remember ever having felt better, or been in better spirits than I am at present, and I give cycling the credit for it. The course and circumstances of my life and conduct have, with the one exception of my indulgence in cycling, in no way altered from what they were before and during the time I had my repeated attacks of illness. You had ample opportunity of judging my condition years before I took to cycling, and the fact that I have enjoyed such excellent mental and bodily health since I took to the pastime goes far, I think, to show you that cycling is entitled to much, if not all, the credit.

I may add, by the way, that I am not conscious of having experienced any ill effects, even though the bulk of the 6,800 miles I have ridden has been on a solid-tyred machine. With this machine I often do forty miles on an afternoon, and feel quite fresh and active next morning. In fact, the whole of my experience of cycling has been of the most pleasant and enjoyable kind, and I do not anticipate it will soon be otherwise.

I can unhesitatingly corroborate Mr. A. B.'s statements regarding the present state of his health, though he seems to be stating the case for cycling rather too strongly. Physically he is most robust—a man of 54, he looks barely 45—and he appears to be more stable mentally than he has been at any time during the seven years I have known him. It does not seem improbable, therefore, that this new hobby has taken the place of the morbid recreations of former years, and so removed one of the most potent exciting causes of his attacks.

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## OCCASIONAL NOTES OF THE QUARTER.

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### *The Annual Meeting.*

The fifty-fifth Annual Meeting of the Medico-Psychological Association, held in London on July 23rd and 24th, under the presidency of Dr. Mickle, was fully occupied with the business and scientific work provided. Indeed, time did not permit of the completion of all that was intended.

The Presidential Address, which was only delivered in part, is now presented in full; and we congratulate Dr. Mickle on fulfilling the expectations which his honourable position in the world of medicine induced us to form. His careful survey of a field which is of the deepest interest to psychologists, his elucidation of difficult medico-legal questions, and his balanced appreciation of a long series of clinical facts all command our respectful attention. Dr. Mickle has given us of his best, the garnered sheaves of an abundant harvest.

Dr. W. F. Robertson showed a series of microscopical preparations, which again gave ample proof of his skill and patience in elucidating the facts of pathology. Other papers of deep interest were read, and the results of research and reflection were unsparingly communicated, and submitted

for the criticism of the meeting. The Association was also favoured with an original paper by Dr. Channing, whose presence as representative of the United States was duly appreciated. His opinions as to the significance of narrow palates are opposed to current teaching, but are supported by a long series of patient investigations. We are, unfortunately, unable to print Dr. Channing's paper in this number of the Journal; but expect to present it to our readers in the January issue. We have also retained reports on the administration of thyroid extract, by Dr. Legge and Dr. Hay, in the meantime.

We can only regret that the attendance was so inadequate. The number of those present, as entered on the book provided for that purpose, was very limited. This is not as it should be, with a membership of five hundred and nine. It cannot be averred that the junior members of the Association are crowded out because there is no room, or because the great majority of Medical Superintendents have left them no choice. They are, indeed, heartily welcome, and should bear in mind that it is to them that the future of the Association belongs. The Medico-Psychological Association has done good work in the past; it has been carried to its present position of influence and strength by the efforts of the men Dr. Outterson Wood has so timeously commemorated, and those whose active services we yet command; it is for those who have yet to bear the burden and heat of the day to proffer their services, to maintain what has been gained, and to press forward in hope of new victories for science and for humanity.

The Council, too, has its plain duty. The trust committed to them is not fulfilled unless they consider well how they may direct the affairs of the Association so that the attendance at important meetings may be improved, and the effective strength of the members may be directed to conserve and augment the interests at stake. The Association has resolved that the Council shall, year by year, give some account of their proceedings, of the condition of the affairs of the Society; they have been called upon, in fact, to justify their existence. It is hoped that they will respond with some effect to this demand for their *raison d'être*. At the risk of becoming didactic, than which nothing can be more hopelessly out of fashion, we hint that there is a more excellent way. Dr. Savage boldly professes *dissatisfied science* as preferable to *self-satisfied science*. Therein is hope. Truly "the best is yet to be."

*Retirement of Dr. Beach.*

“There are mile-stones on the Dover road.” We have passed one of our mile-stones when we mark where Dr. Fletcher Beach drops out of our official ranks. Fortunately, we do not say good-bye, for we are assured of his good company and kindly aid in the ranks, while he continues to occupy a position of greater freedom and lesser responsibility. Dr. Beach has given ungrudgingly of his time and talents to the Association that placed him in the responsible and honourable post of General Secretary. Generous and well-deserved acknowledgment of his services was made at the Annual Meeting, where he occupied his place for the last time. The Association is fortunate in having secured Dr. Percy Smith as his successor, and we trust that it will be long before we have to chronicle another change in this important office.

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*Criminal Responsibility.*

The Report of the Criminal Responsibility Committee has now been finally adjusted, and the compromise effected between extreme views may be accepted as the best possible at the present time. While the legal mind is unbending from rigid formalities of doubtful authority, the medical attitude should be one of expectant attention. We are not in a position to dogmatise; our information is not exact, full, and precise in leading to inevitable conclusions. Having plainly indicated that the McNaghten case does not now meet the necessities of justice, we leave it to legislators to amend the practice of the courts when that can be done. The advance of medical science has discredited the answers of the judges as they were formerly interpreted; but a constructive policy does not at present appear to be possible. Time will infiltrate the courts with modern ideas, and the stability of jurisprudence, as administered by able men of whom the nation is justly proud, is wisely resistive of immature proposals.

The Association has been well served in this matter by the Committee appointed two years ago. The exhaustive memorandum prepared by Dr. Orange, and the vast amount of labour bestowed upon the investigation necessary by Dr. Mercier must be gratefully acknowledged. At the same time, there is in the Report no expression of finality; it does

not discourage further research and future consideration of the problems involved. On the contrary, it is a settlement *ad interim*; and we again remind those whose duty leads them into the witness-box that all important cases should be recorded with precision and promptitude.

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### *Pensions and Gratuities.*

During the past year the question of pensions and gratuities to those engaged in asylum service has been repeatedly before the Association. We direct special attention to the communication we have received from Dr. Murray Lindsay which will be found under "Notes and News." We would regret to learn that Dr. Lindsay contemplates retiring from the position he has so long held to the advantage of the county of Derby, were it not that we are assured that he will be no less active in promoting the interests of the Association in his well-earned leisure. As the questions at issue are still *sub judice* we refrain from going into details at present. It is, however, encouraging to learn that the English and Scottish Commissioners are in full sympathy with the demand that asylum officials should be properly provided for by pensions and gratuities in the circumstances so repeatedly made clear.

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### *British Medical Association.*

The meeting of the British Medical Association at Carlisle, held in the end of July, attracted many visitors to that historic town. The section of psychology was most ably and hospitably presided over by Dr. J. A. Campbell, who was supported by a fairly good attendance. The meeting will be memorable by reason of the great pains taken to render it successful, and the interesting nature of the scientific work presented. We must regret that the section was not so fully attended as it deserved. No doubt it was difficult for those specially interested in psychology to be present for two successive weeks at places so distant as London and Carlisle. We have remarked already upon this difficulty, and must further add that at Carlisle there was an additional cause for regret in failure to present communications promised. This is a growing evil, and must be remedied. One discussion at Carlisle would have fallen

through altogether had it not been that the President proved equal to the occasion, and stepped into the imminent deadly breach. We doubt if it is entirely respectful, it certainly is unfair, to a President to require him to act as stop-gap. However, Dr. Campbell proved capable and ready to meet the difficulty, and his extempore speech needed no apology. His Presidential Address was full of interest. Instead of attempting to survey man from China to Peru, he wisely limited the scope of his remarks to the district where he has done such admirable work for the insane.

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#### *Private Care.*

The section of psychology rarely lets an opportunity slip of crystallising opinion in the form of a resolution. This year Dr. Rayner moved for what would be a distinct improvement in the Lunacy Law of England. We commend the resolution in that it promotes the medical treatment of a class of cases at present productive of considerable difficulties. The provision for the temporary care of incipient and non-confirmed insanity which has proved so valuable in Scotland, should be pressed upon the attention of the Government at the proper time. Meanwhile the matter has been referred to the Parliamentary Bills Committee of the British Medical Association.

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#### *The Woodilee Asylum.*

We regret to have inserted an inaccurate paragraph referring to an action, brought by the Barony Parish of Glasgow, against the General Board of Commissioners in Lunacy regarding the position of this Asylum, in the last number of the Journal (page 684). The Barony Parish Council contended that the asylum was a Public Asylum, or if not a Public Asylum that it was a Parochial Asylum, and that in either case it did not require a license from the General Board. The Parish Council further maintained that if such a license was required, the General Board were not entitled as a condition of granting the license to enforce Rules, prescribing among other things the number of the Managing Committee, and insisting that the Committee shall act independently of the instructions of the Council. This action was decided by Lord Low on the 11th January, 1896,

and on every point he decided against the Parish Council. In the course of the debate the question arose whether the Rules which had, in accordance with their powers, been framed by the General Board and had received the approval of the Secretary of State, had been laid before Parliament as the statute required. This question not having been formally raised in the "summons," Lord Low did not then deal with it; but on the General Board and the Parish Council agreeing to the "summons" being amended so as to bring the matter formally before him he appointed 7th March last for the resumed consideration. The result of the resumed consideration (not the "appeal" as it was erroneously called in our paragraph) was that Lord Low decided that the Rules had not been submitted to both Houses of Parliament as required by statute. In this contention, therefore, the Parish Council were successful. We understand that the omission to submit the Rules to Parliament has now been repaired. They were revised by the General Board, who made some amendments upon them, among others one requiring the Managing Committee to submit their minutes for approval to the Parish Council. They then received the sanction of the Secretary for Scotland, and were duly submitted to both Houses of Parliament before the end of last Session.

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## PART II.—PSYCHOLOGICAL RETROSPECT.

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### AMERICAN.

*By Fletcher Beach, M.B., F.R.C.P.*

*American Journal of Insanity*, April and July, 1895; *Alienist and Neurologist*, July, 1895; *The Journal of Nervous and Mental Disease*, June, 1895.

Dr. Clara Barrus writes in the *American Journal of Insanity* an article on "Gynaecological Disorders and their relation to Insanity." She tabulates one hundred cases in which examinations were made whether the patient presented symptoms calling for uterine examination or not, and is of opinion that a thorough physical examination is necessary in all female cases, since the manifestations which would lead to examination were only noted in three patients. Very often the pain and discomfort felt by insane patients is misconstrued, and so, while we get no expression of pain itself, we may find the patient suffering from delusions that she is pregnant, that she has been violated during the night,

and so on. A synopsis of the table is given, and shows the age of the patient, whether married or not, the presence or absence of menses, leucorrhœa or masturbation, of anomalies and new growths, the condition of the uterus and external genitalia, and the kind of mental disease which is presented. The gynæcologist who learns that it is the exception rather than the rule to find an insane woman with normal pelvic organs must be careful not to assign these abnormal conditions as a cause of insanity, but to keep an open mind, suspending his conclusions until further data can be examined. No doubt the causes of insanity in women are as varied and many of them are identical with the causes of insanity in men, but women have an additional physical and mental strain resulting from the crises which they have to undergo, such as the establishment of puberty, the monthly period, pregnancy, the puerperal state, and the climacteric. None of these by itself is sufficient to produce insanity, and when any of these experiences are said to be the cause of mental disease, we must acknowledge that though these may be the exciting cause, yet the predisposing one is an unstable organisation, causing the patient to be disturbed by occurrences which would only temporarily upset a healthy organism. As regards the table itself, one must guard against the erroneous opinion that the lesions which present themselves are associated more frequently with certain forms of insanity than with others, for although there were thirty-six cases of melancholia and twenty-one of dementia, and only nineteen of mania, ten of paranoia, and twenty-four of miscellaneous mental disorders, we must remember that cases of melancholia and dementia are more tractable and more easily examined, while those of acute mania, paranoia and sexual perversion are examined with difficulty. The author concludes that each case on admission should be examined, and if there is any abnormality present it should be removed if possible ; by this means the degree of nerve irritation will be lessened and one of the "stumbling blocks" in the way of the patient's recovery will be removed.

Dr. Percy Wade gives his experience on "Chlorobrom as a Hypnotic in the Insane." This drug is a mixture of equal parts of bromide of potassium and chloralamid dissolved in water, and was first introduced to the medical profession by Professor Charteris of Glasgow. The solution was first used by him for the prevention and alleviation of sea-sickness, for which it is said to be an excellent remedy owing to its hypnotic action ; acting upon this latter suggestion Dr. Keay employed the drug in the treatment of mental disease. It does not depress the circulation and the heart so much as the bromides, sulphonal or other allied drugs, and is less disagreeable to take than paraldehyde, which has an objectionable odour and is often followed by lassitude, sickness, and headache in the morning. Chlorobrom is not disagreeable to take, leaves no after ill effects, and causes no derangement of the

stomach or bowels. The drug was administered by Dr. Wade ninety-six times to sixteen patients, including three cases of acute mania, three of melancholia, seven of dementia, and one each of active melancholia, epilepsy, and periodic mania. As a rule, the dose was an ounce and was found sufficient to produce sleep in most cases. It was found very useful in simple melancholia, but failed to act in acute melancholia. In acute mania it was found to quiet and produce sleep, although taking longer to act, the sleep being as refreshing as that produced by other hypnotics. In seven cases of dementia the drug did not produce the required result in a single case, but in one of insomnia after epilepsy the action was very favourable.

Dr. James Burton describes "The Blood in the Insane." In this paper the condition of the blood in several forms of insanity is pointed out, with particular reference to the leucocytes as seen in specimens stained with Ehrlich's triple stain. The "heat" method was used in fixing the blood on the cover glasses at a temperature of 120° C., the staining and mounting being carried out in the usual way. In some cases, as a means of comparison, Dr. Gowlers' instruments were used in estimating the haemoglobin and number of red and white discs. The cases consisted of three of senile dementia, four of general paralysis, one of Graves' disease, one of chronic mania, one of katatonia, one of acute mania, two of stuporous melancholia, and one of acute melancholia. The history of the fourteen cases is given and the result of the examination of the blood in each case. The author noticed that in the cases of senile dementia there was, as a rule, increase in leucocytes; while in cases of general paralysis, with one exception, they were markedly decreased; and that in cases with a tendency to maniacal excitement the number of leucocytes was greatly decreased. Some coloured illustrations, showing the condition of the blood in four cases, add to the interest of the paper.

Mr. W. P. Gerhard, C.E., at the request of Dr. Henry Hurd, the Secretary of the American Medico-Psychological Association, gives a description of the "Rain-Bath" as employed in public institutions. The rain-bath, particularly as a form of public bath, had its origin in Germany, one of its chief advocates being Dr. Oscar Lassar. In the United States it was brought to the notice of the engineering profession by descriptions in the *Engineering Record* as far back as 1875, but it was not until 1889 that rain-baths attracted more general attention, the first one being installed at the suggestion of Dr. Baruch at the New York City Juvenile Asylum. In August, 1894, the first large bath-house fitted up entirely with rain-baths was completed at the Utica State Hospital. The novel feature of construction in this bath is the inclination at which the overhead douche is placed, the object being to avoid a vertical stream from the douche striking the head of the bather. The lukewarm water strikes the body from the

neck downward and the head is not wetted, unless the bather purposely places the same under the shower. Mr. Gerhard enumerates eight reasons why the rain-bath should be used, one of them being that its stimulating and invigorating influence is much higher than that of a bath taken from a tub. An illustrated description is then given of the new bath-house at the Utica State Hospital, at which rain-baths are in operation, and we learn that the bath-room is fitted up with thirty overhead nickel-plated brass douches which run at the rate of  $2\frac{1}{2}$  gallons per minute. Besides these there are nine hand sprays which are used for patients who need the assistance of attendants in bathing. An ingenious form of hot-water apparatus, called a "Gegenstrom Apparat," which is extensively used in Germany, was used to heat the water, and it does so instantaneously, uniformly, and without noise. The water is not heated above 110° F., and the water and steam valves are so placed that it is impossible to turn on the steam without first turning on the water.

"Bright's Disease and Insanity" is the title of a paper by Dr. Bondurant. For the last four years a large amount of work bearing on the question of the relationship between nephritis and insanity has been done at the Alabama Insane Hospital. About 1,700 cases of insanity have been subjected to at least one careful physical examination and analysis of the urine; while the cases that exhibited bodily disease of any importance, renal or otherwise, were followed with care, and repeated examinations of the urinary secretion were made. The renal lesions found post-mortem have been studied by the microscope in about 200 cases. It was found that albumen, together with renal casts, could be detected in more than half the cases of chronic insanity treated in the asylum, and in the urine of 75 per cent. of the cases recently admitted; that a large proportion of those whose renal secretion is abnormal exhibit at some time or other evidence of renal disorder; that 25 per cent. of the patients whose urine contains tube casts and albumen present such clinical evidence of nephritis as would enable a practitioner to make the diagnosis of the disease without examining the urine; and that 75 per cent. of the kidneys examined post-mortem showed pathological changes. The author draws the conclusion from these facts that many of the patients in whom insanity and nephritis co-exist are insane in consequence of the nephritis. This opinion has been objected to by physicians attached to other hospitals for the insane, and the author is of opinion that the reason for this is that these gentlemen fail to find them, *i.e.*, casts and albumen, where they do exist, rather a bold assumption one would think for the Assistant-Superintendent of an Insane Hospital to make. Dr. Bondurant then discusses the question whether Bright's disease does or does not cause insanity, and supports his opinion that uræmia not only produces transient mental symptoms, but true insanity,

by quoting the opinion of other authors who have written on the subject.

Dr. Peterson writes a paper full of facts entitled "Craniometry and Cephalometry in relation to Idiocy and Imbecility." He refers to a former paper in which a brief description was given of the instruments needed, the methods employed, and the facts to be gained by a study of the conformation of the head and skull in criminals and the insane, and says that as in idiocy, and particularly imbecility, remarkable deviations from the normal type of head and skull are met with, he thinks more attention should be paid to a study of craniometry in this class of cases than has hitherto been the case. The facts related in the paper are given as a guide to the study of the kind of disease under consideration. The common or well known cranial deformities are platicephalus or flat-headedness; leptocephalus or narrow-headedness; macrocephalus or large-headedness; microcephalus or small-headedness; oxycephalus or steeple-shaped head; scaphocephalus or keel-shaped head; and plagiocephalus or oblique deformity of the head. The two systems of measurement—the craniometrical and cephalometrical—differ only slightly from each other, but the former is the more exact since every portion of the naked skull is attainable. The author passes over the long series of craniometrical measurements and the thirty-eight cephalometrical measurements recommended by Benedikt and selects only those which are absolutely necessary to form a just idea of the capacity and symmetry of the head. The measurements he recommends are eleven in number, viz., 1, the circumference; 2, the naso-occipital arc; 3, the naso-bregmatic arc; 4, the bregmato-lambdoid arc; 5, the binauricular arc; 6, the antero-posterior diameter; 7, the greatest transverse diameter; 8, the binauricular diameter; 9, the two auriculo-bregmatic radii; 10, the facial length; 11, the empirical greatest height. In addition to acquiring these mathematical data, cephaloscopic drawings are invaluable as exhibiting deformity clearly to the eye; hence the horizontal circumference, naso-occipital curve and binauricular curve should be taken with a strip of lead or a conformateur, while the mathematical data are obtained by a pair of calipers and a tape measure. Six per cent must be deducted from the measurements of the circumference, the naso-occipital arc, and the binauricular arc to allow for the scalp and hair. The author has prepared two tables containing the measurements just noted, one consisting of the measurements of normal heads, the other those of eleven adult male and eight adult female paralytic imbeciles. On examining these he comes to the conclusion that in all the cases the skull is more or less diminished in size on the side opposite to the paralysis; that there is a pronounced tendency to diminution in all dimensions and capacity; and that while all of the heads are below the normal averages, more than 75 per cent. are

below the lowest limit of physiological variation in some of their dimensions. The paper is interesting, but the author omits to mention the work of Shuttleworth in the same direction, besides which it is necessary to add that outlines of heads have in many cases been made and measurements of the circumferential, transverse, and antero-posterior diameters, both by tape and caliper measure, have been taken in every case admitted into some of the asylums for idiots in England for many years past.

Dr. Martin W. Barr writes an interesting paper on "Moral Paranoia" in the *Alienist and Neurologist*. The author gives a definition of the word paranoia and the authors who have used it, most of whom have been of German origin. There are two classes of paranoia, the mental and the moral; in the former the intellect is dominated by one or a set of fixed ideas and delusions, and gradually weakens and degenerates, and the ethical sense is not necessarily implicated; in the latter, the ethical sense is either weak or wanting, and it may or may not be associated with intellectual deficiency, but often there is intellectual precocity. This moral form of paranoia is better known in England under the name of moral imbecility. Moral paranoia is divided into two kinds; in the first, the moral sense has not been developed, or through accident or disease has been arrested, but it is capable of development through training; this class is comprised of people not wilfully bad, but of weak wills, easily led astray, and whose weakness of will develops and grows with their physical growth until they astound society with some sudden outbreak. There are many at present under training in various institutions in England and America, in which they become useful members of society, and as they are totally irresponsible they should always be under restraint, so that they may not become vagrants or criminals or the tools of wicked men. In the second class, owing to degenerative tendencies and practices through successive generations or through the taint of some remote ancestor, the moral sense is absolutely wanting. In this type the intellectual faculties may be found defective, but more frequently are unnaturally developed, so that a person of this sort is dangerous to himself and his fellow citizens. The worst class of criminals, the murderer and the harlot, are examples of this type. Patients of this class are in this condition from birth, and even as children are self-willed, obstinate, and delight in sulking, in annoying children, and in torturing animals. According to Lombroso, physical anomalies, such as cranial and facial asymmetry, premature synostosis, unusual frequency of left-handedness, large orbits, prominent zygoma, nervous contraction of face, and a cold, glassy immobile look are found in this class. The line that separates these patients from criminals proper is distinct and has long been recognised by alienists, but unfortunately the lawyers do not appreciate the nature of delusional diseases, nor the frequency of

instances in which men not only lose all sense of responsibility, but are regardless of harm to themselves. Children of this class should be placed in special schools adapted to their needs in order that a firm and well directed discipline may enable them to attain some degree of self-helpfulness, and the State may be spared the ignominy and cost of criminal trials and punishments. They should be detained for life, and as it has been found they can be trained, this treatment should be put in practice, so that their lives may be made happy and useful and they may become docile and harmless. Education does the greatest harm as it fosters the ill we would cure ; in teaching them to write, we give them increased power of mischief, and therefore instruction should be given only in physical work. To prevent moral imbecility is a larger question still ; the public require to be educated and informed that the intermarriage of persons tainted by insanity must be prevented, and that during the period of pregnancy great care should be taken to keep the future mother in a tranquil condition. The author is of opinion that castration should be adopted in cases of this kind, and mentions that the late Dr. Kerlin before his death strongly advocated it.

Dr. Barr is also the author of a paper on "The Influence of Heredity on Idiocy" in the *Journal of Nervous and Mental Disease*. He commences by quoting the opinions of various writers on heredity who all agree that peculiarities and abnormalities are apt to recur in descendants for many generations. The reason why only one in a family may be insane or idiotic, showing that the taint is concentrated, may be partly due to surrounding conditions and the temperament of the parents at the time of conception, and partly to prenatal influences acting on the child during the mother's pregnancy. Morean of Tours pointed out that neuroses are interchangeable in transmission from generation to generation, and on examination we find that there are two laws at work ; the first is a reversion to the original healthy and perfect type, so that the taint becomes less noticeable and after many generations is not found at all ; the second causes the taint to become more pronounced, and a simple nervous disease may appear in successive generations in the form of a pronounced neurosis. After references to the work on the subject done by English authors, Dr. Barr refers to the results of the Commission appointed by the Legislature of Connecticut to investigate the cause of idiocy. The Commission reported that out of 164 cases, heredity was undoubtedly the cause in 70 ; this is much the same percentage as was found in the census of 1873, taken at Berne, when 55 per cent. of the idiots were noticed to come from neurotic families, and Dahl, of Norway, came to the same conclusion. Dr. Barr gives four genealogical tables, one by Dunlop, one by the author of this retrospect, and two by himself, which show how the predisposition to idiocy can be traced through three or four

generations. Consanguinity, the author finds, is not a common cause, and this agrees with the opinion of the English and French authors who have examined into the subject, although idiocy no doubt frequently appears where intermarriage has been frequent. An appalling example is that of the family known as "The Tribe of Ishmael," whose history traced through a period of forty years shows that from one neurotic man descended by consanguineous marriages two hundred and fifty families, numbering altogether five thousand individuals whose continuous criminal record has poured out a flood of imbecility and crime.

"Merycismus or Rumination, with a report of two cases," is the title of a paper by Dr. Riesman in the same journal. The first author to mention this disease was the great Italian anatomist, Frabicius ab Aquapendente, the teacher of William Harvey, who lived at Padua towards the close of the sixteenth and the commencement of the seventeenth century. The literature since then has been carefully reviewed by Johannessen and Singer, who both wrote monographs on rumination and to which those who are interested in the subject can refer for a very extended bibliography. Rumination is defined "as a periodic regurgitation of the food unattended by nausea, retching, or disgust, the regurgitated material being either voluntarily ejected from the mouth or again swallowed, remastication not being an essential part of the act." This regurgitation is analogous to the process of rumination in the lower animals, and the factors which cause this process are two—a lessening of the intra-thoracic pressure and an aspiration of the gastric contents. The stomach itself is passive, as Majendie proved in his famous experiment on vomiting, but writers are not in agreement as to whether abdominal pressure is necessary or not. Rumination is a reflex act and is presided over by a centre in the medulla oblongata, but though the mode of its production has been fully explained we are as yet ignorant of its cause. Pathological anatomy throws no light on the subject, for although Arnold and Luschka found in their respective cases dilatation of the lower end of the cesophagus and an unusual thickness of the internal branch of the spinal accessory nerve, yet the same condition has been noted in cases that did not present rumination during life, while in other cases the cesophagus was normal, and with respect to the hypertrophy of the nerve, its size is known to vary under normal conditions. The condition therefore must be looked upon for the present as a functional disorder of the stomach, and considered as a motor neurosis. The neurotic constitution is an important element in its causation, and a German physician, Näcke, who suffered from the affection, is of opinion that it is closely related to neurasthenia, for when his nervous system was most unstable, the rumination was most energetic. The disease is more common in males than females, and as a rule causes no serious disturbance unless the patient continually brings up the

regurgitated food. The treatment is very unsatisfactory and very few cases of cure have been recorded. Carminatives, electricity, and nerve sedatives have been employed, but with only temporary results. In one case, however, in which hyperacidity of the gastric juice existed, treatment of this condition permanently stopped the disorder.

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## GENERAL.

By J. F. G. Pietersen, M.R.C.S.

### Epilepsy.

Reference to Flechsig's Bromo-opiate Treatment of Epilepsy was made in the last number of this Journal. Though the results chronicled have so far been few in number, the adoption of this form of treatment in severe or obstinate cases of epilepsy, especially when associated with pronounced mental disturbance, appears worthy of consideration. In the *Zeitschrift f. Psychiatrie*, Bd. lii., two communications have appeared, each of which gives most favourable results. Linke has administered opium and bromides in succession to seven epileptics, six males and one female, in all of whom marked psychical aberration existed. In rapidly increasing doses he exhibited opium first for six weeks, suddenly changing the medicament to large doses (7.5 grms.) of bromide, which being continued for another period of six weeks was then reduced to a daily dose of 5 grms. This is the method advocated by Flechsig, though other therapeutists have lengthened the periods of administration of each drug. Linke found that during the opium course the epileptic seizures increased greatly in number, and that the body weight in some cases showed a marked diminution. As soon as the bromides were substituted for the opium the fits immediately diminished in frequency, and the body weight in the affected cases increased again. The ultimate result of the treatment was that in one patient the seizures had not recurred from the commencement of the bromide course until the date of his paper; in another, one fit occurred on the third day after beginning the bromides, and then after an interval of freedom for nine weeks two seizures ensued; a third patient had a fit on the first morning of the bromide treatment, after which an interval of sixty-five days without fits elapsed, when the bromide had to be discontinued owing to bromism; five days after its withdrawal the patient had another fit. With reference to the mental condition two patients showed a comparative improvement, they became more cheerful and patient of control; one of these, who had been subject to accesses of intense furor, subsequently remained quite free from them. Two of his seven patients died during treatment, one apparently by reason of deleterious action of opium on an affected cardiac

muscle, the other owing to exhaustion due to the epileptic status. In nearly all a moderate degree of constipation was induced when the daily doses of opium reached .60 grms., easily overcome, however, by simple aperients. When the maximum dose of opium was reached serious symptoms supervened, which rendered careful observation of each case needful. As only two and a half months had elapsed between the commencement of the bromide course and the publication of his paper, Linke discreetly draws attention only to the remarkable effects of this mode of treatment in cases hitherto wholly uninfluenced by therapeutic measures ; he certainly makes no claim for the method as a specific curative.

In the same journal Rabbas relates his experience of a similar course of treatment adopted in eleven female and five male epileptics, and his communication has greater value as two years have elapsed since the experiments were made. Fifteen of these cases had previously been unsuccessfully treated with bromides only. Rabbas began with .3 grms. of *Pulv. Opii* per day, increased this gradually to .9 grms., after which he suddenly changed the treatment to a bromide course of 7.5 grms. daily. During the opium treatment the number of fits increased ; in one case only did the body weight remain stationary, in every other instance observed there was some diminution. In six nausea and vomiting occurred, but constipation was not a marked symptom. Some mental improvement was noted in every case. With the sudden cessation of opium severe vomiting sometimes ensued, but dangerous symptoms never actually showed themselves. As soon as the bromides were given in place of the opium the fits at once diminished in frequency, in twelve patients they disappeared, and in one case only was there a more serious renewal of the fits. In five cases the attacks remained absent from six to ten months, and on recurrence were less frequent than formerly ; in three there has for two years been no recurrence whatever. Two of his cases died during treatment, both (females) succumbing to the exhaustion of the epileptic status towards the end of the opium stage. The results among the males were less satisfactory than among the nine surviving females.

The treatment is one that may certainly be attempted in cases of some severity, though great care must necessarily be exercised in their supervision during the high dosage of opium and in the transition period of medication.

Voisin and Petit (*Arch. de Neurologie*, 1895, April-August) show that in many cases of epilepsy the attacks occur or recur in groups, while the intervals are marked by partial or complete absence of single fits, and that towards the end of such an interval it may be noted that symptoms indicative of gastro-intestinal disturbance appear, such as a thickly furred tongue, constipation, epigastric distension, anorexia, etc. One or two days after the onset of these signs of digestive abnormality the epileptic phenomena make their

appearance—mental symptoms and actual epileptic fits or their equivalents. As soon as these latter, the recurrences of which are very numerous within a short period, have spent themselves, the condition of the tongue will be found to have improved, the other digestive disturbances will pass away, the whole alimentary function in fact assuming a normality of course, until the supervention of another similar functional gastro-intestinal disturbance, apparently without any definite cause, ushers in a new series of epileptic onsets. In patients prone to well-marked psychical epileptic phases, either peri- or post-epileptic, the furred tongue, constipation, etc., may be observed to be almost constant antecedent symptoms, and with a return to quietude these alimentary disturbances will be found to disappear. In a case in which the series of seizures lasting from six to eight days was interrupted by a few days' cessation of fits it could with certainty be demonstrated that some causal connection existed between the two series of phenomena. Massalongo some fifteen years ago described such cases as instances of "gastric epilepsy," and Pommay (*Rev. de Médecin*, p. 449) has cited two examples of his own and one of Lépine's as illustrative examples of this condition. He attributed the cerebral disturbance to reflex irritation along the vagus, but Voisin and Petit follow Massalongo in regarding them as due to an auto-intoxication. As among uræmic symptoms epileptiform onsets may occur with difficulty differentiable from true epileptic fits, we have an example at hand in support of their theory, and a causal connection is very probable when we consider the close association of the digestive abnormalities with the periodical recurrences of fits, the more so when we remember that the former are invariably antecedent phenomena. The digestive disturbance may be either the cause or the consequence of an auto-intoxication, and probably the latter, for we are frequently able to recognise the occurrence of some alimentary disturbance after a known intoxication, and always if the intoxication is the result of some ptomain, and the likeness of this to the ante-epileptic alimentative disturbance is striking. The authors have on this basis made a laborious investigation in which successive analyses of the urine for albumen, tests of its toxicity, etc., were made, and careful quantitative estimation of its urea, phosphates, etc., undertaken. In such urine analyses of epileptics they appear to have found, directly after the fit-periods, a substance with a peculiar musk-like odour, soluble in water, and of extreme toxicity towards lower animals. Its subcutaneous injection caused death with convulsions. From these examinations they conclude that antecedent to the epileptic accessions the urine has been hypotoxic, and after the fits hypertoxic. The condition of the arterial system was also closely investigated during and after the attacks. Sphygmographic tracings showed that the blood pressure during the tonic and clonic phases of a fit fell so rapidly that a superficial wound inflicted during a fall ceased to bleed; invariably after the stertorous respirations of the second

stage of a fit the blood pressure rose, and any wound incurred began to bleed again profusely. Careful note, too, was taken of the general sensorial, speech and motor functions, and special attention was paid to the condition and functions of the alimentary system. Heredity, alcoholism in the young, drug-abuse, and various chronic affections, *e.g.*, syphilis, were found to be predisposing influential factors towards such auto-intoxication. The blood was carefully examined, and in some instances micrococci were discovered, but the authors wisely do not attach much importance to such discovery, though they think their presence may indicate that toxine formation is being carried on within the body. Without going further into their investigations we may note that they express the conviction that epilepsy, not only the gastric but also other idiopathic forms, may be regarded as the result of an auto-intoxication, the poison acquired or collected in the organism inducing these convulsive phenomena. The possibility that some other operative cause may be existent, as in the production of Jacksonian and reflex epilepsy, is not lost sight of, but they consider generally that—1. A hereditary predisposition exists in the central nervous system for the production of epileptic onsets. 2. That the epilepsy may result either from some reflex nervous disturbance or from an auto-intoxication, and that this may be caused by an auto- or hetero-infection. They close an interesting paper by urging the importance of close attention to alimentation, the use of purgatives, intestinal antiseptic medication, diuretics, etc., in all cases of epilepsy, indicating how, under certain circumstances, these measures may have a favourable influence in warding off or diminishing attacks.

#### *Sulphonal.*

#### *The Pathogenesis of Hæmatoporphyrinuria.*

In the *Zeitschrift f. Klin. Medicin* (Bd. 28), Prof. Stokvis makes a contribution to our knowledge of the aetiology of this affection. The continuous administration during successive days of a known quantity of sulphonal to dogs and rabbits was found to cause the appearance of hæmatoporphyrin, which, though in most instances of small amount, was demonstrable, as the majority of the urines examined were free from albumen. It was only when the drug was pushed to a fatal termination that albumen appeared during the last days of life. Examined post-mortem, the gastric mucous membranes of the subjects experimented upon were found to be studded with large and small hæmorrhagic punctæ, and spectroscopic examination displayed the presence of hæmatoporphyrin in these localities. A similar abnormal condition of the urine was produced by the introduction of pure blood into the stomach. Small quantities of blood were daily administered to dogs and rabbits, with the result that hæmatoporphyrin speedily appeared in the urine. The same effect has been produced by Zeehuisen by feeding animals with raw (or hæmoglobin containing) beef.

The artificial digestion of blood with pepsin, hydrochloric acid, and sulphonal results in the formation of hæmatoporphyrin. An interesting question was raised as to whether this abnormal urinary constituent, in cases of lead colic, could in a similar manner be explained, and experiments on rabbits rapidly poisoned with acetate of lead, after some days' fasting, proved the conjecture to be correct. Numerous mucous haemorrhages in the stomach were found, and spectroscopic examination of these revealed the presence of hæmatoporphyrin. The aetiology of this symptom would therefore appear to be a transformation of haemoglobin in the intestinal tract through the action of the digestive fluids; an explanation, too, is furnished of the manner in which sulphonal acts as a poison.

As an addendum to Hirsch's case of acute sulphonal poisoning mentioned in the last number of this Journal, we may note a case published by Wyss (*Correspondenzbl f. Schw. Aerzte*) of a young girl, which, from the description, appears to have been one in which the hypnotic effect of the drug was combined with a state of hysterical lethargy. Sulphonal, it may be noted, rarely acts as an acute poison in the normal healthy subject. Thus Neisser has related the case of a patient who with suicidal intent took no less than 100 grms. of sulphonal in one dose—the only result was a prolonged sleep of four days. In Wyss's case the early symptoms following four doses of 1 grm. of sulphonal were lethargy, succeeded twenty-four hours later by acute muscular contractions (probably hystero-epileptic in character), and later on by alternations of these conditions, lasting altogether for fourteen days. The patient, after complete recovery some months later, denied all recollection of the affection. The danger of sulphonal treatment lies rather in its long-continued use than in any direct acute effect; the urine is evidently never affected in acute poisoning by very large doses.

#### *Trional.*

Some cases of chronic trional poisoning have been published by Reinicke (*Deutsch. Med. Wochenschr.*, 1895, No. 13), who instances one in which 40 grms. of trional had been administered during 107 days (in which, however, there were intermission periods of 21 and 8 days). He found the urine to contain free blood, and Quincke doubts whether in trional poisoning hæmatoporphyrinuria ever occurs. Schulze, however, in 1894, described a case in which hæmatoporphyrin certainly occurred in the urine. Reinicke's case, which also had dysenteric symptoms, recovered on ceasing the administration of the drug.

#### *Acetonuria and Mental Disorder.*

Prof. Wagner, Dean of the Vienna School of Medicine, in a recent paper read before the Vienna Medical Society on Gastro-intestinal derangements and mental affection, remarks that acute

cerebral disease is not an uncommon sequel of febrile affections, and that a similar relationship exists between infectious diseases and polyneuritis, for the last-named may be caused by toxic agents such as lead, alcohol, etc., as well as by specific infectious maladies, such as pneumonia, enteritis, etc., and by impairment of the gastro-intestinal functions. As infectious diseases are now regarded as due more to the toxines derived from the specific micro-organisms than to the micro-organisms themselves, these causes must also be looked upon as toxic in their nature. In like manner mental disorder may arise as the result of a perverted gastro-intestinal action, and acetonuria is the most noteworthy symptomatic evidence of this. Acetone, though a normal urinary constituent, is increased during increased tissue metabolism. It has been found in the blood in febrile cases by Von. Jaksch, who also first drew attention to its presence in the urine. It appears to originate in large measure during abnormal gastro-intestinal action, and the perverted metabolism which causes it probably leads to the formation of toxines capable of inducing serious mental disturbance. Wagner advocates the use of iodoform in daily doses of 1 grm. divided into ten parts, each of which would therefore contain about 2 grains. Acetonuria, in his opinion, is due either to micro-organisms or fermentative changes in the intestine, and as improvement occurs when excess of acetone is no longer a urinary constituent, he suggests that gastro-intestinal disinfection would probably be the best way of treating these cases.

#### *Aphasia in Linguists.*

Pitres (*Rev. de Méd.*, 1895, H. xii.) leads up to the description of a case of aphasia in a linguist by a careful review of the literature of this particular occurrence of speech disturbance. The instances cited from the works of Troussseau, Charcot, Bastian, etc., were of individuals who had been competent linguists in two or more languages, French, and a dialect or patois such as Gascon or Basque, or more widely differentiated languages such as German, English, Spanish, Italian, Russian, etc. In each of the six instances, quoted from standard works, the aphasia was the result of a right hemiplegia, and in every case there was immediate loss of the speech originating faculty and speech recognition. A gradual recovery ensued in every one, but in no case did any of the patients reacquire full comprehension or faculty of speech in more than one language, the others in which they had been able to converse fluently having become mainly unintelligible to them. One patient, born in Béarn, and who up to his twelfth year had never spoken or heard any other language than the dialect of that district, and who later in life acquired a proficient knowledge of pure French, which he then invariably used, became affected at the age of 48 with right hemiplegia and

aphasia. Three years subsequently he could again converse in French, but he had lost all power of speaking his native dialect though able in a certain measure to understand what was said to him in it. The second patient, who spoke Gascon and French before his aphasia, reacquired the latter, and similarly to the first failed to speak the dialect, though understanding it when spoken. In the third case, able to speak French, Basque, and Béarnese, the reversion was to Basque alone. The fourth, a French, Spanish, and Italian linguist, lost his capacity to reacquire the last named language, regaining his native tongue, French, and the Spanish he had learnt to speak when 25 years of age. The fifth case, that of a Frenchman, who was able to converse in four languages, as well as in the Basque dialect, reacquired only his native tongue and lost totally all perception of or power of speech in the others. The sixth case considered was similar to the last described. It appears from a consideration of these similar cases that the mother-tongue, with one exception, was the first to return. Pitres is of opinion that the course of events in the aphasia of polyglottics can conveniently be divided into stages: (1) the total loss of the power of recognition of any language; (2) a regular return of comprehension of that language which had most frequently and readily been used by the patient prior to his affection; (3) a regular return of the faculty of expressive speech in such a language; (4) a return of ability to comprehend a strange language; and (5) the eventual restoration of ability to converse in such. It appears to us that Pitres has lost sight of the fact that in the speech education of the cerebral centre in childhood and even in adult life the right centre may receive in a greater or less degree impressions mainly conveyed to and registered in the left, but that the left alone usually acts as the emissive centre for speech. In speech re-education then, after destruction of the left centre, the right very soon acquires the power of recognition, having probably had some antecedent preparation, but the speech originating faculty is a slower process, as the function has to be worked up to a proper degree of action. As early impressions are the most lasting, the mother tongue will be the one most easily reacquired by the uninjured centre; any other language would probably be difficult of acquirement, in proportion to the previous reception or non-reception by the right centre of speech impressions. Another point is that in all these cases the reacquirement appears to have taken place primarily of that language which was used to the patient on his regaining consciousness—so that it resolves itself into a matter of education of a more or less prepared right speech centre, and in proportion to its state of preparedness, so will recognise and expressive speech power be more or less rapidly developed. It may be that the right centre has never received any impressions whatever, and in that case the language will be as difficult to acquire as if it had never previously been known. The case related in detail by Pitres was

that of a man aged 35, a competent French, Gascon, Spanish, Italian, English and Arabic linguist, and who after an apoplectic seizure had right hemiplegia with aphasia. The hemiplegia soon disappeared, so that after two months traces only of that affection were left. The aphasia disappeared more gradually. His power of comprehension returned 17 days after the seizure, and was limited to French; he was, however, utterly unable to express himself therein. Three weeks later he was able to understand whatever was said to him in that tongue, and he began to articulate, voluntarily, certain French words. His acquired languages remained completely incomprehensible to him. Three months later he was brought into contact with some of his Gascon relatives and in three days he acquired the recognition of, and in some measure the power of expression in that dialect. The four other languages in which he had previously been able to converse fluently, remained utterly unintelligible to him. Four months subsequently, he began rapidly to reacquire recognition of Italian and Spanish, and had at the time of the paper commenced to give verbal expression in those languages. English and Arabic he had not been able to reacquire either in recognition or speech.

The somewhat venturesome hypothesis that the inferior portion of the third frontal convolution is that immediately occupied as the centre of record and expression of one's native language, while languages acquired later in life find their centre in the remaining portions of that convolution, cannot, by reason of lack of evidence, be entertained. Aphasia moreover cannot be simply explained as the result of a definite circumscribed organic lesion only; there is a dislocation of functional association to be considered, such as is seen in certain forms of aphasia of mental origin, and not due to any organic lesion; in such functional aphasia, too, those centres and tracts will first be restored to activity which, before the aphasia, functionalised earliest and most frequently. As the psycho-acoustic centre is developed prior to the motor speech centre the comprehension of language will necessarily precede that of speech expression, and the reversion to articulate speech coincides with the return or assumption of function of the phonetic articulation centre. In proportion to the more ready activity of the uninjured centres and tracts there will, under favourable circumstances, be a restoration of the faculty temporarily lost, first of comprehending, and then of speaking, primarily the earliest acquired language, and, later on, those of more recent acquisition.

#### *Cerebral Tumours and Mental Affection.*

Thoma (*Allgem. Zeitschr. f. Psych.*, Bd. lii., Hft. 6) records three cases of cerebral tumour in which some form of mental disorder was the early and main symptomatic evidence of cerebral lesion, there being none of the usual sensori-motor phenomena to make this condition even suspected during life. His first case was that

of a man aged 52, who, after sundry syncopic attacks, developed melancholia with loss of memory and considerable lack of energy. He died suddenly after having suffered for a few days previously from vertigo and vomiting succeeded by deep coma. Three months only had elapsed between the first appearance of his cerebral symptoms and death. The second case was of a female, aged 58, who was brought to the asylum suffering from delusions of unworthiness and persecution. In this case sudden death also occurred after a few days of spastic paralysis of the right arm and leg and right ocular amaurosis. The duration of the affection was but two months. His third instance was of a female aged 52, whose early symptoms were pains in the back, the occipital region, and both legs, following which there developed delusions of persecution. After severe vomiting, clonic spasms in the left arm and leg and left facial paresis, she suddenly died, the duration of all her symptoms having been but one year. In each case a pronounced mental heredity existed; in the first this showed itself before the onset of pronounced insanity by the irritability and peculiarity of conduct and the morbidly introspective moods of the patient. The second case had had two previous attacks of melancholia. The tumours could in fact only be regarded as causative factors of the psychoses in that they reacted on brains predisposed hereditarily to mental affection. In each case moreover the features of the mental affections pointed to a diagnosis of hysteria when bodily symptoms supervened. The continued complaints, the craving after notice, the exaggeration of the mental symptoms when they thought themselves specially observed, the elaborate and demonstrative suicidal attempt in the presence of others of one of the cases, all lead to the belief that hysteria rather than any organic lesion formed the basis of their affections when certain unexplainable physical symptoms declared themselves. Thoma suggests that these hysteriform symptoms may have been induced by the presence of these tumours, but without discussing that point we may regard the cases as interesting as they show how careful we must be not hastily to regard every hysteriform symptom as one of hysteria.

#### *Syphilis and Nervous Disease.*

In the *Zeitschrift f. Klin. Med.*, Bd. xxix., S. 140, Storbeck discusses the assumed relationship between tabes dorsalis and syphilis from a careful clinical and historical investigation of 108 cases of locomotor ataxy, which during three years had been treated in Prof. Leyden's clinic and in private practice. He arrives at the conclusion that an aetiological connection between these affections cannot be maintained. He insists that in his statistical summaries he has been careful to eliminate all sources of error, thus implying that many of the early statistics of others have been unreliable. He divides his cases into three groups, in the first of which he

places all such as both by their history and symptoms gave evidence of an undoubted antecedent syphilitic infection ; in his second group occur those cases which he considers doubtful ; and in the third section those which neither by their history nor by any objective sign showed traces of precursory specific disease. He then found that of 108 cases of tabes taken from every social grade 22 were certainly syphilitic, 23 were doubtful, and 63 were certainly not syphilitic ; that is that only 20·4 per cent. of tabetics were syphilitics as well. By adding one-half of his doubtful cases to the first group he finds that the maximum proportion only reaches 30·6 per cent. The results thus obtained by Storbeck closely correspond with the figures furnished by Westenhoeffer in 1894, who tabulated 72 cases of tabes occurring at the Charité Hospital, Berlin, between the years 1884 to 1893. His percentage of tabetics with indubitable history of early syphilis was 25·6 (which approximates closely to the actual occurrence of syphilis in the population, placed by Naegeli at 22·5 per cent.), and the inclusion of his doubtful cases gave him a percentage of 44, a proportion far removed from that of Fournier (93 per cent.). Storbeck has taken the pains to investigate the tabulated cases of no less than forty-eight authors, whose results vary widely ; thus Déjérine calculates that no less than 97 per cent. of tabetics have an antecedent syphilitic history, while Mayer at the other extreme denies its occurrence *in toto*. He regards the high percentages of Fournier (93 per cent.), Déjérine (97 per cent.), Strümpell (90 per cent.), Erb (89 per cent.) and others as untrustworthy, in that many of these, and especially Fournier, have had a wide reputation as specialists in syphilis, and that tabetics thus affected would naturally be led to consult them, and he maintains that his objection is applicable to many other neurologists who have published their results, and who, having a preponderance of syphilitic tabetics brought before them, are driven to wrong conclusions. Storbeck also objects to the acceptance of a syphilitic history from the patient without some definite corroborative objective symptoms pointing to specific disease, and following Kaposi declares that sclerosed inguinal, submaxillary and other glands are by no means indicative by themselves of antecedent syphilis. He draws attention also to the fact that at the inception of tabes when the diagnosis of the affection is still very difficult, there not infrequently occurs a sexual hyperexcitability which may render the patient prone to syphilitic infection, and should syphilis then be contracted and undergo treatment, while some years later definite symptoms of tabes supervene, a follower of Fournier's doctrine would undoubtedly regard the specific disease as the aetiological factor of the neurosis. As a further argument against the syphilitic doctrine he adduces the usual objection that tabetic phenomena are rather intensified than diminished by anti-syphilitic treatment, and he quotes Westphal, who declares that he has never yet seen a case of

locomotor ataxy cured by mercury and iodide of potassium. Storbeck regards the published instances of tabes thus cured as not genuine cases of locomotor ataxy, but as examples of true syphilitic affection of the cord and its membranes simulating tabes. He further mentions cases in which syphilitic infection occurred during the onset of tabetic symptoms, and that anti-syphilitic treatment had a beneficial effect on the former and none whatever on the latter. Were syphilis, he contends, the main aetiological factor in the production of locomotor ataxy it would naturally be expected that a large proportion of syphilitics would later on show tabetic symptoms; but Lewin in investigating the after history of 800 undoubted syphilitic females found that five only were subsequently affected with neuroses, and that of these not a single one was tabetic. Reumont, too, found 290 cases of nervous disease in 3,600 known syphilitics, and of these only 40 were the victims of tabes dorsalis. Whether syphilis may, as suggested by Leyden, predispose the organism by a loss of resistive power to tabes, he declines to consider.

More recently Gluck of Vienna has published a pamphlet on the same subject. His arguments, too, are in refutation of Fournier's syphilitic theory. Relying on the well-known clinical fact that a syphilitic is immune so long as he presents any active grade of specific disease, he shows that were tabes a syphilitic malady a second infection in a tabetic patient would be an impossibility, and the occurrence therefore of recent syphilis in tabes he takes as a proof that the nervous affection is not of specific origin. He also instances the rarity of tabes among negroes and Asiatics, in whom syphilis is most common, and recounts his experiences in Bosnia, where this malady appears to be most rife in certain districts, and where among 3,000 patients with syphilis who had passed under his observation not a single case of locomotor ataxy was to be found.

As bearing closely on this subject it may be interesting to review the arguments of Hirschl (*Wien. Klin. Rundsch.*, Nov. 10, 1895) in the matter of the aetiology of general paralysis. He has analysed 200 cases of general paralysis occurring during ten months in von Krafft Ebing's clinic. The majority of these, all males, were of low social grade. In no instance was the disease definitely attributable to purely mental influences, and heredity was traceable in only 11 per cent. Hirschl admits the possibility of traumatic influences as exciting causes in patients already afflicted with syphilis, but he denies any connection between lead poisoning and general paralysis. The most important causative factor he maintains is syphilis. The antecedent occurrence of this he has proved in 56 per cent., and a probable pre-existence in 25 per cent. of the 175 cases in which reliable histories could be obtained. The incubation period he places at from two to twenty-nine years. He argues that the affection is a purely syphilitic

one, and he supports Obersteiner's view of the analogy of general paralysis with syphilitic perihepatitis, both beginning as inflammatory changes, followed successively by disappearance of the parenchyma, interstitial changes, and eventually atrophy. He regards general paralysis as a late form of syphilis commencing as a syphilitic encephalitis of subacute form, proceeding to syphilitic cerebral atrophy. His view as to the pathology of the cerebral process is based on Lang's dictum that any organ in which a gumma develops must have suffered from irritation in the early stage of syphilis. The contagion residuum in the brains of general paralytics is propagated with renewed vigour owing to the natural hyperæmia of the organ during functional activity, to functional hyperæmia from various mental causes, or to the occurrence of apparently slight traumatic influences.

The *Lancet* of February 22nd, 1896, contains an interesting paper by A. H. Ward on Latency in Syphilis, which may profitably be consulted by those interested in this subject.

#### *Sensory perception at various age periods.*

Many investigators have indicated the diminution in sensory perception to be found in so-called degenerates, and Ottolenghi has endeavoured to show that this applies as well to individuals of low social grade. To enhance the value of this psychological inquiry he has (*Zeits. f. Psych. u. Phys. der Sinnesorg.*, Bd. ix., Hft. 5 and 6) published the results of his examination as to the general sensorial function and response to painful impression at various age periods. As stimulus he employed the faradic current, and by means of a faradimeter he was enabled to determine minute variations in electrical strength. He distinguishes various grades of sensibility, ranging through numerous degrees from extremely marked sensory perception amounting almost to a hyperæsthetic state, to a pronounced dulling approaching the anæsthetic condition. His tables appear to show—that the ordinary sense of feeling is fairly well developed in children, but varies somewhat in degree, increases steadily with years, and reaches its maximum at the period of adult life; that in adults there are grades of sensibility which differ not only with small age periods, but also with the social status and what he terms "the degree of degeneracy presented." It appears further that at an advanced age sensory perception declines markedly, so that response to the faradic stimulation is less even than in children. With reference to pain reaction he shows that the minimal degree of stimulation acting as a painful impression (30-40 volts) was sufficient for some, while others required a higher degree (130 volts) before the sensation was translated as one of pain. There are therefore, as in ordinary æsthesia, widely varying grades of algesic perception. As in ordinary sensation, he finds that the social state and "the degree of degeneracy" influenced the per-

ception of painful impressions. The influence of age periods was more marked in these experiments than in those on ordinary sensation, and he established from his tables that during youth very little pain recognition for the most part exists—a somewhat unexpected result—that pain reaction increases with years, but in contradistinction to his results in general sensibility it does not sensibly decline with old age. Similar experiments on females, though not completed, lead him to believe that sensory perception in them also develops with increasing years, and that the degree of perception between girls and boys of the same age shows no marked difference.

#### *Criminal Anthropology.*

Two recent publications (*Iets over Crimineele Anthropologie*, by Prof. Winkler and Dr. J. D. v. d. Plaats: Geneesk. Bladen ii., Nos. 5 and 6; and *De Beoefening der Crimineele Anthropologie en Gerechtelijke Psychiatrie*—an introductory address by Prof. Jelgersma at the University of Amsterdam) present us with a fairly concise *résumé* of the views generally accepted by the followers of Lombroso in his study of the criminal, and mark the degree of interest which attaches to this subject at the present day in Holland. It has always occurred to us that Holland is noteworthy in its possession of some able scientists who are but unfortunately too ready to grasp at the latter day developments of psychology, to parade with some degree of dogmatism the illogical inferences of others. Hypnotism, which for a season held the field, rose through their exertions to the position of a revived science, was vaunted by them as a panacea for every psychic ill, and has finally become consigned to its previous obscurity now that the more alluring doctrines of Lombroso and his school have been placed before them. It is the study of the criminal that now possesses them, they keenly note his every organic degenerative sign and set on it the seal of a psychical meaning, they accept the edicts of "the master" with childlike faith, and strike out for themselves new and startling lines of investigation which by their utter irrelevancy serve to evoke in their less enthusiastic brethren feelings rather of regret than derision.

It has been reserved for an English writer on matters criminal to reproachfully taunt psychologists of this country for the utter lack of interest they display in this new study, merely because they fail to subscribe to the doctrines of the Italian and German schools; but this cannot be considered a very culpable apathy when the reflection is indulged in that the physical investigation of the criminal originated in England and that English alienists prefer to interest themselves not in hasty deductions from utterly insufficient premisses, but in a careful investigation of indisputable facts, before they will consent to commit themselves to any final judgment in the matter. We cannot recognise that Lom-

broso's work is one of pure scientific investigation ; its very basis is unscientific. He has never extended his researches beyond the prison walls into the associated mental and physical peculiarities of the normal man, for he has studied the abnormal only ; nor has he followed the degenerate child through life to verify those psychic deviations from the normal which he and his followers maintain are the associations of such degenerative stigmata—sufficient is it for them to tabulate certain atypical physical developments and to label them as evidences of psychical degeneracy or abnormality merely because they are found allied at times. This to us appears to be making folly of science. Much we grant may be learnt from a study of the criminal man in his physical and mental peculiarities of type, but the time is not yet ripe for deductions. To specify but a few of the unrecognised factors in the study of Criminal Anthropology, or as Ferri more aptly terms it, the natural history of the evil-doer—we are utterly ignorant of the variations in skull conformation and in facial type induced by certain mental states and specified lines of abnormal conduct ; this alone is a subject which requires careful research before we can begin to enlarge on degeneracy and its signs—we cannot as yet explain the occurrence of criminality in the man of normal, mental, and physical development, and of hitherto normal conduct, nor can we yet elucidate the conjunction of a degenerate physical conformation with a healthily working mind, while no allowance whatever is made for that easily observed and indisputable fact that every child during its development from infancy to the adult stage passes from a condition of mere animal existence and from a state akin to that of the savage through successive stages of mental and moral civilisation until it reaches a finality of conduct which we term right or wrong ; his environment and education, if evil, may serve to arrest his moral development at any point and make a criminal of him ; if beneficial and proper, may make him an honourable man. So long as we neglect to group and classify normally acting man as to his mental characteristics on the one hand and his cranial, facial and other physical features on the other—not in the fanciful mode of Lavater, but accurately and scientifically—so long cannot we venture to deal with him who is acting abnormally. By all means let us store up facts, but let us make no attempt at a deduction until we are certain that we have them all.

Professor Jelgersma accepts and expounds all the doctrines of Lombroso as to the signs and symptoms of criminality with the exception of his theoretical teaching as to criminal atavism. Jelgersma regards the criminal not so much reversionary in type as "a dysharmonic development from the normal." What, we wonder, is Professor Jelgersma's opinion of Lombroso's doctrine as to the affinity of crime and genius with epilepsy ? Professor Winkler in like manner unhesitatingly subscribes to Lombroso's

teachings, and strikes out quite a new departure in scientific medical investigation by calling to his aid the services of a noted mathematician to whom he refers the duty of calculating from the skull measurements he has made of fifty murderers (subjects, the most ardent criminologist will acknowledge, the least likely to present constant "degenerative signs" of value), as compared with the skull measurements of fifty unconvicted persons (another fallacious factor, for any one of these might become a murderer to-morrow), a most entertaining mathematical formula, grounded on the theory of probabilities, from which the readers of this Journal will be pleased to gather that "the chances are 400 to 1 that in a recruit the smaller frontal horizontal measurement will be greater than in a murderer"—certainly a most noteworthy, highly profitable and valuable result. Futile ramblings such as these surely require a rebuke from "the master," similar to that inflicted on Max Nordau for his ingeniously farcical publication entitled "Degeneration."

Has it never occurred to criminal anthropologists to attempt a more rational explanation of the main peculiarities of the criminals they study, and out of whom they make so much literary capital, than to classify their minor abnormalities as evidences of degeneracy? Slang and secret symbols may surely be regarded as elaborate protective measures on the part of the criminal to avoid detection—his abnormalities of handwriting may surely be due to his inefficient or perverted education, his sensory insufficiency and his moral deficiency may be but the results of a neurotic acquirement through years of evil thinking, evil doing, and evil association—we cannot be at all certain that such things are not so, and boldly to assert the contrary without a shadow of proof, and to assume that therefore the criminal is a mental degenerate, and as some even venture to affirm, an irresponsible being who requires moral education and not punishment, all these may be very pleasant as airy theoretical speculations, but they are neither scientific nor logical. The influences of evil education and evil environment are put in the background, to the greater prominence of a speculative condition which for all we know may be but a result and not a cause of his abnormal conduct. So long then as we are unable to satisfy ourselves with the sufficiency of their premisses may we be permitted to hesitate—our hesitancy implies not indifference but merely caution; we know but too well how eager our continental friends, and notably those of Italy and Germany, are to draw large and sweeping inferences from the probably accidental similarity of a few cases, and we fear their minds are but too easily led into self-satisfying conclusions. This is a feminine trait of which they should endeavour to rid themselves, biding in patience for the reputation they are endeavouring to establish as the pioneers of a new science.

## CRIMINAL ANTHROPOLOGY.

*By Havelock Ellis.**The Elmira Reformatory.*

The nineteenth *Year-Book* (1894) of the New York State Reformatory reflects, even at the first glance, the period of trouble from which the Reformatory has only lately emerged. It is a very plain and unpretentious document, without even a single illustration. Although the charges which have been brought against the Superintendent, Mr. Brockway, do not affect the special characteristics of the institution, *i.e.*, the indeterminate sentence and the system of physical and psychic treatment now familiar to readers of this Journal, they tended to throw discredit upon the Reformatory, and moreover random and ignorant statements of the case appeared from time to time in England, even in influential medical journals. As the matter has now been fully investigated and finally settled, it may be worth while briefly to set forth the results.

The main charge was of cruel and excessive punishments, and it was supported by a preliminary investigation, practically the work of a single man. In 1894, however, Mr. Flower, the Governor of New York, appointed a committee of three—Dr. Austin Flint and two lawyers, the Hon. William Learned and the Hon. Israel Deyo—who have fully investigated the matter. Three documents resulted: a majority report prepared by Dr. Flint and Mr. Deyo, a minority report—dissenting at certain points—by Judge Learned, and the careful and judicial decision of Governor Flower, who, besides using the two reports as a basis, independently investigated the matter. The first and third documents are contained in this *Year-Book*; the second I have obtained independently.

The committee did its work very thoroughly, and no less than 150 witnesses were examined. As a result the majority report finds that certain defects and errors existed, but at the same time recognises "the magnitude and general excellence of the work that is being accomplished." The corporal punishment consisted in "spankings," administered by the Superintendent in person, with a strap twenty-two inches long and three inches wide, and applied to the bare buttocks. Before 1882 it was very rarely employed; since 1889 it has been very frequently applied. The report finds that, assuming that corporal punishment is reasonable, this method was suitable and effective, not involving cruelty, and they only find evidence of excess in one case. They consider also that corporal punishment, under proper restrictions and regulations, is preferable to the modes of punishment which must necessarily take its place if abolished. The chief changes in the Reformatory which they consider desirable are—(1) a decrease in the excessive

population, 600 inmates being preferable to 1,200 (for this, of course, the managers of the Reformatory are not responsible); and (2) the appointment of an assistant to the physician. These changes would make the institution, they say, an ideal establishment. "As it is organised and conducted, however, it is a model reformatory. Its results have been extraordinary as regards its success in the reformation of criminals. It probably stands pre-eminent among the reformatories of the world. These results are due to the unselfish devotion of the managers and the extraordinary qualities of Mr. Brockway as an organiser and an executive officer, added to his intimate knowledge of the criminal character."

Judge Learned, in his minority report, while agreeing at many points with the majority, and fully recognising Mr. Brockway's sincerity and good motives, considers that there was a certain amount of cruelty, although no permanent injury was ever caused, and the strap was only applied to the buttocks. He details a case in which, owing to a misunderstanding between the physician and the Superintendent, an insane man received corporal punishment. He sets forth Mr. Brockway's view of such applications, *i.e.*, not as a punishment, but as a method of permanently influencing nervous action, as of "the nature more of surgery," with reference to the future rather than to the past, not retributive but remedial; he regards it, however, as a method which should not exist in such an institution. He also points out that it was kept in the background, and he refers, quite correctly, to the ignorance of the present writer, some years ago, concerning its use at Elmira. At that period it was, in fact, seldom resorted to.

The Governor's decision, in the main dismissing the charges brought against the Reformatory, is a sensible and sagacious document. He points out, in reference to Judge Learned's conclusion, that "such a conclusion depends largely upon definitions and upon individual sensitiveness. Corporal punishment necessarily implies physical pain, but all pain is not cruel. All the Commissioners agree that the evidence exonerates Mr. Brockway from any cruelties which inflicted serious or permanent injuries upon convicts. . . . In the main he seems to have exercised his authority to inflict corporal punishment with great moderation and care, and his occasional lapses have not justified a sweeping or general condemnation of his methods and practices."

It may seem that this is not a very serious matter to arouse so much disturbance. In English prisons a much larger proportion of prisoners are punished in one way or another, 57 per cent. as against 34 per cent. at Elmira. The Reformatory is, however, a place of international interest and importance, a model which other countries are learning to imitate, and this investigation will have done good service in clearing its reputation from baseless charges, and incidentally also in showing that it is not, as Mr. Tallack and others have idly imagined, a comfortable and luxurious establish-

ment to which criminals are glad to go. (As a matter of fact they much prefer the ordinary prison where no strenuous effort is required of them). It is to be hoped, also, that the investigation will induce the Legislature to put an end to the overcrowding which is really the most serious defect of the Reformatory.

An unavoidable delay in the appearance of this retrospect makes it possible to include notice of the *Year-Book* for 1895. This volume is nearly as attractive as of old. In addition to copious tables dealing with the relations of age, height, weight, breathing-capacity, strength of chest, back, arms and legs, there are a large number of process and other illustrations, showing the men in the gymnasium and reproducing typical examples of the various kinds of foreheads, ears, noses, foot-prints and tattoo-marks commonly found at Elmira. Deficiency of chest development is very marked ; 75 per cent. of the men are defective in breathing-power. It is not considered that ear anomalies are more frequent than outside the prison ; this, however, is only given as an opinion, and the figures show at least a very large proportion of outstanding ears. Flat-foot is very common ; foot-impressions were taken of 529 men, 23 per cent. were absolutely and congenitally flat-footed and 19 per cent. showed an unusually low arch. Tattooing was found among 34 per cent. of the men. Dr. Case, who has examined the inmates for eye-defects, makes some interesting remarks ; he finds strabismus very common and attributes it chiefly to lack of symmetrical development due to degeneracy ; unequal refraction of the eyes is also common ; the interpupillary distance is very frequently either too narrow or too broad, giving a peculiar expression to the eyes noted by Dr. Case, as by many others before him. The average age of 529 men was found to be 20 years 8 months ; the average weight 133 lbs., average height 5ft. 5 $\frac{1}{2}$ in., lung capacity 202 cub. inches, strength of chest 69lbs., of back 270lbs., of legs 375lbs. In all these respects the average inmate of Elmira is far below the average American man of the same age ; in height he is even below the average girl student of Wellesley College, and in the other measurements given he is little if at all superior to the girl students.

The whole *Year-Book* bears witness that Dr. Wey and his assistants are anxious to live up to their reputation as almost the only investigators of criminal anthropology outside Europe. Both in England and America the tendency is still to indulge in theory or criticism about criminality, rather than to engage in the more arduous but far more important task of collecting reliable facts on which alone theory and criticism can safely work.

The *Year-Book* is also of interest to English readers because it throws some light on the recent *Observations* of our Prison Commissioners concerning the recommendations of the Departmental Committee. It does this not only by showing the advantages of a reformatory for an older and more radical class of prisoners than

our reformatories are provided for—granted always that the indeterminate sentence is introduced together with genuine scientific treatment—but also in matters of detail. Thus our Commissioners disparage gymnasiums and baths. The *Year-Book* demonstrates that the Commissioners' objections are the outcome of inexperience. At Elmira the advantages of the baths and gymnasium as tonics to the enfeebled nervous system of criminals are more clearly realised every year. Last year all prisoners during the first month after admission were subjected, during half a day, to a daily course of this character, and in appropriate cases (125 last year) the treatment was continued for a much longer period. "It is difficult," we are told, "to formulate in figures or phrases the advantages of baths and exercises, continuously and scientifically administered; it is unquestionably of the greatest usefulness in every way;" a considerable percentage, it is said, without that experience, would break down in health, and deteriorate to a degree of degeneration beyond recovery. The objections imagined by our own Prison Commissioners are non-existent. The questions involved in the treatment of criminals are mainly medical questions, and we still confide the control of this treatment to Commissioners who are exclusively laymen.

#### "Moral Insanity."

The conception of "moral insanity" and its identification with "congenital criminality" has long been an apple of discord among psychiatrists. It is, however, largely a matter of definition, and Dr. Näcke has recently laid down with much clearness and precision, though perhaps no great novelty, the doctrine of "Moral Insanity" ("Die sogenannte 'Moral Insanity' und der praktische Arzt," *Aerztliche Sachverständigen-Zeitung*, 1st July, 1895). He begins with the proposition, which should now meet no opposition, that "'Moral insanity' as a specific disease does not exist, but what is so called is a variety of imbecility." It differs from ordinary imbecility, because (1) intellectual disturbance is not obvious, (2) there is a predominance of ethical and æsthetical defects; (3) there is an inclination to immoral and dangerous conduct producing conflicts within and without the family; and (4) when congenital there are certain peculiarities in its course. Näcke points out that morality is not congenital, the only congenital element being the aptitude to be morally influenced by education and environment, but this aptitude involves nearly the whole of the nervous system, so that development of morality with defect of the other mental powers is scarcely conceivable. The diagnosis is practically important since moral insanity is more difficult to combat than mere bad environment. The earlier it is recognised and treated the better. The heredity is usually very bad, and sometimes there have been intra-uterine troubles or serious illness during infancy. In spite of care the child is a

ne'er-do well in the family and the school. The morbid character of the trouble is indicated by its well-marked periodicity, commonly found in all so-called "degenerative" psychoses. Nor are plentiful indications of degeneration lacking in skull and face and the rest of the body, as well as functional signs such as choreic movements and strabismus. The intellectual condition is decisive as regards the diagnosis between "moral insanity" and ordinary imbecility. If the intellect is but slightly disordered, and especially if there is marked immorality, Näcke considers that we may speak of "moral insanity," but he believes that in every case careful investigation will reveal a lack of mental equilibrium and defective attention, memory, etc. To illustrate the difficulties of diagnosis he brings forward the case of a girl of thirteen, who brought gross accusations of immorality against her father. The father was healthy; the mother had been insane; the girl herself was considered physically and mentally healthy and of normal intellect, though on consulting her teachers it was found that she was regarded as lacking in intelligence, diligence, and attention. She showed no feelings of affection, not only towards her father but also towards her dead mother. She was chlorotic. At first Näcke was not inclined to consider the case one of moral insanity, but ultimately he decided that it might fairly be so regarded. At the same time he admits the probability of an element of suggestion, and the influence of chlorosis and puberty. (The possibility that the accusations were true seems to be fairly excluded, though that is a contingency to be borne in mind.)

In a subsequent paper ("Zur Frage der sog. Moral Insanity," *Neurolog. Centralblatt*, No. 11, 1896), Näcke develops his views on this point in their broader bearings, and with full reference to the opinions of others. He accepts the identification of the "moral idiot" with the "congenital criminal," but considers that in the strict sense this phenomenon occurs so rarely that it would be best to give up both terms. Taking "moral insanity" in the broad sense, he considers that the cases really fall into three groups: (1), The largest group, that of the feeble minded, including both the "physiological" feeble-minded who are still able to earn their own living, and the "pathological" feeble-minded who are unable to do so; (2), an insane group (Gruppe der originär Verrückten) which Näcke is inclined to call "paranoïd;" (3) moral idiots in the narrowest sense, "degenerates," not insane in the practical sense of the word, but standing on the borderland of insanity, and usually exhibiting many of the physical and psychic signs of degenerescence.

#### *The Dean Case.*

The telegraphic news in the London newspapers last year contained frequent references to a trial for attempt to murder which was exciting much interest in Sydney, New South Wales; they were,

however, not very intelligible. A pamphlet has now been issued at the *Sydney Bulletin* office, bringing together all the documents bearing on this case, which is of considerable interest both from the psychological and the medico-legal points of view, with which latter, however, we are not here concerned.

George Dean, 28 years of age, the master of a ferry steamer in Sydney Harbour, was in March, 1895, charged with administering poison (arsenic mixed with strychnia) on several occasions to his wife. He was tried, found guilty, and sentence of death was pronounced. The evidence, however, was not absolutely conclusive, and a certain amount of prejudice was imported by the dictatorial attitude of an unpopular judge. (It was the same judge who tried, ten years ago, the Mount Rennie case, which will still be remembered in England. On that occasion a number of men and boys were convicted—chiefly, as was afterwards found, on the evidence of criminals—of outraging a girl of uncertain character; four were hanged and five still linger in prisons and asylums.) Dean consequently became the hero of a popular agitation, and a Citizens' Defence Committee was formed, forcing the Government to appoint a Commission (consisting of Dr. Sydney Jones, Dr. F. N. Manning, and Mr. Rogers, Q.C.), who practically re-tried the case. The majority of the Commission (the two medical members) reached the conclusion that the wife had for some unknown reason administered the poison to herself; Mr. Rogers, in a minority report, re-affirmed the result of the original trial. The outcome was that Dean, amid general acclamation, received a free pardon. But then fresh evidence began to accumulate; the chemist who (illegally) sold Dean the poison came forward, and it was gradually elicited that Dean's own counsel had by a ruse obtained from him a confession of guilt. (It may be noted in passing that that counsel's love of certainty, and all that it involved, ruined his career.) Dean was consequently tried a third time (the judge not being the same as in the original trial), found guilty, and sentenced to 14 years' penal servitude.

It will be observed that the medical majority of the Commission chose the wrong alternative. Little blame can be attached to them on this account, for the evidence with which they dealt was largely not of a medical character, besides being inconclusive, and it seemed best to them to err, if at all, on the side of mercy. In balancing probabilities they entirely ignored the character and mental history of the man. One of the Commissioners is the leading mental expert in New South Wales, but as the medical Commissioners decided that the man was innocent they naturally refrained from investigating his mental condition. The real medical evidence only leaked out subsequently. On both sides of Dean's family there are signs of unstable mental equilibrium. His father, a police constable, committed suicide merely because a prisoner escaped him. His mother is described by

Dr. Crooke as "mentally weak." She seems, indeed, to have suffered from delusions of persecution, for she had a constant dread of being poisoned; it was said that she would take her own tea and sugar out with her when on a visit, that she sometimes awakened the neighbours by screaming that powdered poison was on the sheets of her bed, and that on one occasion she let herself into a dry well and remained there for a long period to avoid persecution. Her sister is also mentally weak. Regarding Dean's own condition there is not much information. It appears that, as a boy of thirteen, he was convicted (illegally it seems) of using a horse without permission, and sent to prison to associate with criminals for three months. In his photograph Dean's features appear to be anatomically regular, but the expression, though good-natured, is weak and fatuous. There was no adequate motive for the crime; all that could be said was that the couple had lived together unhappily for some months, on account of Dean's dislike of his mother-in-law. It was alleged that he was always kind to his wife and children.

So far as the evidence goes, Dean was clearly sane according to all currently accepted tests. But he seems to have possessed a certain degree of feeble-mindedness, ultimately showing itself in his easy and callous indifference to moral considerations when an obstacle stood in his way, whether or not he may fairly be regarded as coming within the class of instinctive criminals. Such a case is worthy of attention, if only as further evidence that when we are compelled to pronounce a criminal "sane" we have by no means necessarily said the last word about him.

#### *The Histology of the Cerebral Cortex in Epileptics and Criminals.*

Dr. Roncoroni, an assistant in Lombroso's laboratory at Turin, has recently published a study on this subject ("La Fine Morfologia del Cervello degli Epilettici e dei Delinquenti," *Arch. di Psichiatria*, fasc. i.-ii., Vol. xvii., 1896). In obtaining his material he was assisted by Tamburini, Giacomini, Bianchi, and other well-known workers. He investigated on an average three points in the frontal lobes of the brains of 10 normal persons, two new-born children, 25 epileptics, 11 recidivist ("congenital") criminals, eight occasional criminals, 10 insane persons, and 14 animals. The sections were prepared in accordance with a special method. Of the 25 epileptic brains five were normal; of the 11 recidivists six were normal, or only slightly abnormal; of the eight occasional criminals five were quite normal and the remainder only slightly abnormal. The decreasing order of normality was thus:—Occasional criminals, recidivists, epileptics. The chief anomalies noted are (1) absence or great reduction of deep granular layer, (2) unusual prevalence of large pyramidal and polymorphic cells, (3) frequency of cells in white matter. Roncoroni then proceeds to discuss the significance of these anomalies. Analysing the factors

in epilepsy, he concludes that these anatomical phenomena represent the hereditary element. "The morphological anomaly reveals to us the disordered development of the nervous system, a development which predisposes to chemical alterations, if indeed the same cause does not produce both these disturbances," although the morphological anomaly is not essential. The changes in the criminal brains are the same in kind though less in degree and frequency, and Roncoroni regards them all as morbid changes due to atavism or arrest of development during foetal life.

#### *The Wisdom Teeth in Criminals.*

A certain degree of inquisitiveness has been expressed as to the position of the wisdom tooth among criminals. The matter has at length been investigated in considerable detail by Dr. Carrara ("Sullo Sviluppo del Terzo Dente Morale nei Criminali," *Arch. di Psich.*, 1895, fasc. i.-ii.). He examined nearly 400 criminals of the age of 19 and upward, all belonging to Piedmont, as compared with 57 normal individuals. Comparing normal and criminal persons of the same age, Carrara found the wisdom tooth much more frequently present among normal persons. The percentage number of criminals showing no last molars is nearly quadruple that of normal individuals, according to Carrara's figures. Among normal persons, Mantagazza and Amadei place the frequency of absence of third molars as between 18 and 23 per cent. Carrara, among his criminals, finds it 33 per cent. It may be worth mentioning that Talbot, of Chicago, has found that out of 670 persons the percentage of missing third molars is still higher, *i.e.*, 46 per cent., but Talbot thinks that this large percentage is due to the high proportion of neurotic and degenerate persons in his practice needing special treatment.

This result of Carrara's investigation is interesting, because it does not altogether harmonise with the atavistic view of the criminal as a reversion to savagery. The criminal, it is usually held, has a large and massive jaw. It might have been suspected that his teeth would correspond, but apparently this is not so, and in this respect, at all events, criminals are not so much behind as in front of their normal fellow creatures.

The question, however, is not yet settled, for Ascoli has more recently criticised Carrara's results and brought forward new results of his own (*Arch. di Psichiatria*, 1896, fasc. iii.). He points out that Carrara's subjects were mostly petty criminals who usually show few hereditary degenerative characters, and that they belonged to Piedmont, where the brachycephalic type of skull predominates and affects the form of the jaw. He has himself examined, in the prison at Ancona, 170 criminals, who belonged to all parts of Italy and were mostly guilty of grave offences. He found that for ages above 30 only 8.8 per cent. were absolutely without the third molar, as against Carrara's 22 per cent. and

Mantegazza's 42 per cent. for normal persons in Italy generally. The average was 12 per cent. as against Carrara's 33 per cent. Thus Ascoli supports the atavistic view, and the question must await further investigation.

#### *Instinctively Criminal Children.*

A very important branch of criminological study is the investigation of the classes which are most prolific in criminals, especially the class of tramps and vagabonds. To study these it is necessary that someone with scientific aptitudes should actually live among them. It is very rarely, however, that the properly-qualified individual is both able and willing to acquire the confidence of this class of moral cripples, and peculiar value, therefore, attaches to the careful and detailed investigations which have for some years been carried on by "Josiah Flynt," the *nom de guerre* of a gentleman belonging to a well-known and distinguished American family. Hitherto he has only published his results in magazine articles, which possess considerably greater scientific value than we are wont to find in magazines. In the *Atlantic Monthly* for January, 1896, he has an interesting article on "The Children of the Road."

Young tramps, from an etiological point of view, fall into four groups. The first group consists of those whose parents are tramps, and who are born in the road. In this group environment is everything. The second class, not a large one, consists of those who are forced by starvation to beg and pilfer. The size of this group is often immensely over-rated. The third class, a large one, consists of those who are enticed on to the road, sometimes by "penny dreadful" literature, sometimes by a curious *wanderlust* which Josiah Flynt regards "as quite as much of a disease as the craze to steal which is found now and then in some child's character" (it seems a little doubtful whether the victims of *wanderlust* should come into this group); more often decoyed by an older tramp who wants an apprentice with whom his relationship, though the writer does not here make the statement, is often one of perverted sexuality.

The fourth class, small but important, consists of children who possess an intuitive bent towards crime and vagabondage which is "almost uncanny." Josiah Flynt has known about twenty children of this kind whom he regards as "morally delinquent at birth." "These boys have in largest measure what the entire body of moral delinquents possesses in some degree." They are like "dwarfed men born out of due time;" they instinctively possess the skill of "trained criminal artists," and are the delight of the whole criminal world. In physical appearance "most of them have seemed to me to have fairly well-formed bodies, but something out of the ordinary in their eyes, and in a few cases in the entire face. Sometimes the left eye has drooped very noticeably," and one boy could at will "throw a film over the eye in the most

distressing fashion" (apparently an atavistic development of the membrana nictitans, not uncommon in some lower races). "The faces were not exactly deformed, but there was a peculiar depravity about them that one could but notice instantly," and which was not visible in the parents' faces, when these latter came under observation. "I believe that the parents of these children, and especially the mothers, could tell a great deal concerning them, and the theorists in criminology will never be thoroughly equipped for their work till all this evidence has been heard."

With regard to the treatment of "the children of the road," Josiah Flynt insists that we need, above all, "the reform of the reformatories." "First of all we must have a humane and scientific separation of the inmates in all these reformatories, for the law of the survival of the fittest in this field means that the partially good will be dominated by the wholly bad." "Second, the management of reformatories should be in scientific hands," and young men and women should be specially trained for such institutions. "There is a moral hospital service to be carried on in penal and reformatory houses." These recommendations (which coincide with those brought forward by the present writer eight years ago as regards both reformatories and prisons) are undoubtedly gaining ground, and must, indeed, commend themselves to all who have the slightest knowledge of these matters.

Dr. Austin Flint, compelled by his duties in connection with the Elmira investigation to devote close attention to the methods of treating criminals, has recently stated his views on the question generally in a presidential address to the New York State Medical Association on "The Coming Rôle of the Medical Profession in the Scientific Treatment of Crime and Criminals." He here eloquently expounds the important nature of "the task to which the medical profession will more and more be called in criminal administration." The treatment of criminals, he goes on to say, is the great social question of the present day. There is no good reason why we should not take advantage of the studies and experience of criminologists and penologists, treating without malice or resentment the criminal as a patient as well as crime as a disease; and there is every reason why we should study crime in our prisons in the same spirit in which we study disease in our hospitals and insanity in our asylums, with the object of curing the curable by reformation, protecting society against the incurable and devising means of dealing with them, preventing the development of criminal tendencies in the young. The day of punishment, based on an extinct theory of revenge, is over, and Dr. Flint quotes, with approval, the words of Laurent, "The physician should be the friend and student of the criminal as he is of the insane; should know how to distinguish the alcoholic, epileptic, insane, the vagabond, and morally insane. The prison may be a prison, and yet be transformed through the results of criminal anthropology."

*The International Medico-Legal Congress.*

This Congress was held at New York in September of last year. It is said to have achieved a success far beyond the most sanguine expectations of its promoters, and to have given an impetus to the advance of medical jurisprudence which cannot be estimated. Certainly every movement which tends to bring the medical and legal professions into closer touch is deserving of all success. Between 60 and 70 papers were presented at the Congress, more than half of them belonging to psychiatry, criminal anthropology, and allied psychological departments. A few of these papers, of varying quality, have been published in the *Medico-Legal Journal*; it is proposed to print them all in a *Bulletin*, at a price low enough to bring the volume into the hands of all whom it may concern. The volume can scarcely fail to be of considerable interest. Subscriptions (five dollars) are received by Mr. Clark Bell, 39, Broadway, New York.

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PART III.—NOTES AND NEWS.

## MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

## ANNUAL MEETING.

The Annual Meeting was held in the Rooms of the Association, 11, Chandos Street, London, W., on Thursday and Friday, July 23rd and 24th.

At the meeting on Thursday morning Dr. David Nicolson, President, occupied the chair.

Dr. FLETCHER BEACH, Honorary General Secretary, read the minutes of the last Annual Meeting, which were thereupon confirmed.

The election of officers and Council for the ensuing year then took place, Dr. Oscar Woods, Dr. E. W. White, Dr. A. R. Turnbull and Dr. C. Mercier having been appointed scrutineers. They reported that "the nominations of the Council are endorsed by an overwhelming majority, but two voting papers strike out two of the Editors as a protest against the plurality of Editors."

The PRESIDENT declared the election to have resulted in the following appointments :—

<i>President-Elect</i> . . . . .	T. W. McDOWALL, M.D.
<i>Treasurer</i> . . . . .	H. HAYES NEWINGTON, M.R.C.P.E.
<i>General Secretary</i> . . . . .	R. PERCY SMITH, M.D.
<i>Registrar</i> . . . . .	J. BEVERIDGE SPENCE, M.D. H. RAYNER, M.D.
<i>Editors</i> . . . . .	A. R. URQUHART, M.D. CONOLLY NORMAN, F.R.C.P.I. E. GOODALL, M.D.
<i>Auditors</i> . . . . .	T. OUTTERSON WOOD, M.D. E. B. WHITCOMBE, M.R.C.S.
<i>Divisional Secretary for Scotland</i> .	A. R. TURNBULL, M.B.
<i>Divisional Secretary for Ireland</i> .	OSCAR WOODS, M.D.
<i>Divisional Secretary for South Western Division</i> .	P. W. MACDONALD, M.D.
<i>New Members of Council :</i>	
G. H. SAVAGE, M.D.	ROBERT S. STEWART, M.D.
E. W. WHITE, M.B.	H. A. BENHAM, M.D.
FLETCHER BEACH, M.B.	J. A. CAMPBELL, M.D.

Attention having been drawn to the fact that two members of the Council had not attended any meetings during the past year, the Council were requested to take action in accordance with Rule LXVIII.

T. Clifford Allbutt, Esq., M.D., F.R.C.P., and John Fraser, Esq., M.B.Edin., F.R.C.P.E., were elected Honorary Members of the Association.

The President announced the names submitted for election as Corresponding Members, and thought that they should immediately proceed to the ballot.

Dr. MERCIER referred to the discussion at the last Annual Meeting, when it was generally felt that some information should be vouchsafed as to the gentlemen whose names were then brought forward. There were members who were unfortunately unacquainted with these names, and it would assist them if information were submitted.

The PRESIDENT said that if any black balls were cast on the submission of the names collectively, a vote would be taken on each separately, and that would be the time for some such statement. He wished to facilitate business by this procedure. If six members of the Association subscribed the nomination papers of these gentlemen it ought surely to be taken as representing a full expression of their worthiness.

The names having been submitted to the ballot *en bloc*, two black balls were found to have been cast; each name was then separately voted on.

In response to the PRESIDENT, Dr. URQUHART said—I have the honour to propose that Professor Leonardo Bianchi be elected a corresponding member of the Association. Professor Bianchi obtained medical and surgical diplomas at the University of Naples in 1871. He was appointed Privat Docent of Pathology in 1877; Assistant Physician to the Neapolitan Provincial Asylum in 1882; Director of the Palermo Asylum in 1887; Professor Extraordinary to the University of Palermo in 1888; Professor of the Psychiatric Clinique and Superintendent of the Neapolitan Provincial Asylum in 1890, where he has established histological, bacteriological and physiological laboratories. The following works are selected from many published by him; and the April number of the *Journal of Mental Science* contains a retrospect of psychological work in Italy for 1895:—*Sopra un' alterazione anatomo-pathologica del simpatico*; *Sin centri motori corticali del cervello*; *Sul significato della eccitazione ellettica della zono motrice corticale*; *Sulla paralisi spinale spastica*; *Sulle compensazioni funzionali nella corteccia cerebrale*; *Contributo alla Dottrina Della temperatura cefalica*; *La polarizzazione psichica nella fase sounomologica dell' ipnotismo*; *Ist die Vernunft eine auschliesslich den Empfindungsbereichen der Hirnrinde zukommende Thatigkeit?*; *La responsabilità nell' isterismo*; *Semiologia generale delle malattie mentali*; *Sulla origine infettiva di una forma di delirio acuto*; *Paralisi Progressiva e frenosi sensoria*; *The functions of the frontal lobes*; and many others.

I have also the honour to propose that Dr. Johannes Bresler be elected a corresponding member of the Association. Dr. Bresler received his medical education at the Universities of Breslau and Munich. He was Clinical Assistant to Professor von Ziemssen and Professor Grashey; afterwards Assistant Medical Officer in Dr. Kahlbaum's private asylum at Gorlitz, in the provincial asylum of Buntzlau, and in the provincial asylum in Kosten. In 1894 Dr. Bresler was appointed Chief Assistant Physician of the provincial asylum at Freiburg in Silesia. The following works have been published by him:—*Zur associirten deviation der Augen und des Kopfes*; *Ein Fall von infantiler progressiver Paralyse*; *Die Verpflegung Geisteskranker in Familien*; *Studium der Medulla Oblongata*; *Ueber spinal epilepsie [Neurolog. Centralblatt]*; *Hysterie*. The April number of the *Journal of Mental Science* contains a retrospect of psychological work in Germany during 1895 from his pen. He also writes for the *Anthropologische Centralblatt*, and is a member of the Anthropological Society of Berlin.

I have also the honour to propose that Dr. F. M. Cowan be elected a corresponding member of the Association. Dr. Cowan is M.D. of the University of Utrecht. He was Assistant Medical Officer to the Meerenberg Asylum for three years; afterwards Medical Superintendent of the Dordrecht Asylum for eleven

years. He is now a consulting physician in the Hague. The following works have been published by him:—*Pathological Section of Meerenberg Report for 1881*; “On Lunacy Legislation,” *Journal of Mental Science*, 1883; “On General Paralysis in a Woman,” *Journal of Mental Science*, 1883; “On Typhoid Fever in Insane Cases,” *Nied. Tydschrift.*; “On the Insane in Holland,” *Dict. of Psychol. Med. and Journal of Mental Science*, April, 1896; “Lunacy Legislation in Holland,” *Annal. Med. Psychol.*; *Report to Spanish Government on Dutch Lunacy Law*. The April number of the *Journal of Mental Science* contains a retrospect of psychological work in Holland for 1895 by Dr. Cowan, who is already an honorary member of these societies:—The Societe de Medicine Mentale de Belgique, the Society for the Study of Inebriety, the Medico-Legal Society of New York.

The nomination papers handed in to the General Secretary were signed by David Nicolson, W. Julius Mickle, H. Hayes Newington, Henry Rayner, D. Yellowlees, A. R. Urquhart.

The gentlemen thus proposed were then unanimously elected.

The TREASURER (Dr. Hayes Newington) then submitted his report, which, with the Auditors' statement, had been circulated among the members, and made a statement as to the Gaskell Fund.

#### ANNUAL REPORT OF THE AUDITORS.

We, the undersigned, beg to report that we have duly examined the accounts of the Association, with the vouchers, and find the same to be correct. We regret the expenditure exceeds the income by £27 0s. 9d. The item £46 17s. 8d. for miscellaneous expenditure includes a sum of £30 which the Treasurer was called upon to pay, and to which we shall make verbal allusion at the Annual Meeting. We again draw attention to the necessity of due economy being rigidly observed, having in view the further development of the Association and the extension of its sphere of usefulness.

June 15th, 1896.

ERNEST W. WHITE,  
T. OUTTERSON WOOD, } Auditors.

Dr. WHITE thought that the annual report by the auditors should not be a perfunctory duty. It devolved upon him, as senior auditor, to make allusion to the £30 mentioned in their report. That sum was paid for a verbatim short-hand report of an inquiry held by the English Commissioners at an asylum; and it had been necessary for the auditors to satisfy themselves that this expenditure had been properly made. It was a large sum to be called upon to pay at a moment's notice and on the authority of one of the officers. He had no doubt that the treasurer would clear up the matter satisfactorily.

The TREASURER said the matter had been fully gone into at the Council meeting last year, when a motion was made by Dr. Oscar Woods that the matter had been thoroughly explained. Leaving that aside the only question of principle raised was whether the President and Officers of the Association were entitled to authorise the expenditure of money in an emergency. He himself strongly held the view which he had put before the Council that there were emergencies in which the Association must act before the Council could be called together to give any authoritative power to the treasurer to pay. The occasion in question, was such an emergency in the view of several of those capable of judging. He had agreed to pay the money on condition that the direct authority of the President was obtained. He thought it was one of the privileges of a President to take the law into his own hands in an emergency. He would be a very foolish man if he took a step that could not be justified by events; but, if he felt he was justified, it was due to his position as President to authorise a payment without being very severely taken to task for so doing.

The PRESIDENT agreed with Dr. Newington that the President should have some power to take the law into his own hands in an emergency without being penalised afterwards. The incident, however, would no doubt render officers extremely cautious before agreeing to the expenditure of large sums.

REVENUE ACCOUNT—January 1st to December 31st, 1895.

Dr.	Expenditure.	Income.
To	£ s. d.	£ s. d.
Journal, Printing, Publishing, Engraving, Advertising and Postage	486 9 10	By Dividends ...
Examinations, Association Prizes, and Clerical Assistance to Registrar	75 2 0	By Sale of Journal ...
Petty Disbursements, Stationery, Postages, &c.	44 9 6	," Handbook ...
Annual, General, and Divisional Meetings	100 14 8	," Advertisements ...
Rent of Premises at 11, Chancery Street, and care of Office, &c.	45 2 0	," Fees, Certificates of Psychological Medicine ...
Furniture Purchase	10 12 9	," Proficiency in Nursing ...
Audit and Clerical Assistance	8 8 0	," Subscriptions ...
Law Charges—Registration	50 0 0	," Subscriptions ...
Miscellaneous	46 17 8	Balance ...
		867 16 5
		£867 16 5

**BALANCE SHEET—31st December 1895.**

Liabilities.		Assets.	
Journal Account, balance of	... 37 12 4	Lloyd's Bank:—Bankers	... 126 19 2
Examinations Account, balance of	... 18 11 0	Consols (£306) value at this date	... 325 17 9
Petty Disbursements Account, balance of	... 21 4 1	Fees Account, balance of ...	... 7 7 0
Meetings Account, balance of	... 5 9 3	Sales Account, balance of ...	... 110 12 0
Rent Account, balance of ...	... 10 0 0	Subscriptions Account, balance of ...	... 70 17 6
Miscellaneous Account, balance of	... 9 2 9—101 19 5		
Gaskell Fund Account, Dividends	... 10 16 0		
Balance:—Balance 1st January	... 559 17 8		
<i>Deductions:</i>			
Balance of Revenue Account	... £27 0 9		
Correction of Subscription Account	5 5 0		
Subscription written off	7 17 6—40 3 3		
		641 13 5	

*Add: Increase in value of Consols...*

Examined and found correct, ERNEST W. WHITE,  
T. QUITTERSON WOOD

E. WOODINGTON, F.C.A.

H. HAYES NEWINGTON, TREASURER.

The report of the treasurer was then unanimously adopted.

The PRESIDENT then announced that the Gaskell Prize and Gold Medal had been gained by Dr. William Richard Dawson, of Farnham House, Finglas, Co. Dublin, a graduate in Arts and Medicine of Trinity College, Dublin. He was glad to state that the examiners gave a very high report of the results of the examination. He expressed the hope that this result was but the augury of Dr. Dawson's greater success in the future.

The PRESIDENT then called up Dr. Dawson and presented him with the Gold Medal.

The successful candidate, for the Bronze Medal and Prize of Ten Guineas of the Association, was announced to be Dr. John Turner, Senior Assistant Medical Officer, Essex County Asylum, who had submitted a paper of great merit.

#### THE REPORT OF THE CRIMINAL RESPONSIBILITY COMMITTEE.

" The Committee have felt from the outset that to them has been entrusted a task of great delicacy and responsibility. The subject committed to their consideration is not only intrinsically of great difficulty, but is one as to which much feeling has been aroused, and strong language has been used both by legal and medical authorities. A heavy responsibility rested, therefore, upon the Committee to avoid raising prejudice, to guard against injuring the medical profession, either by advancing statements that could be controverted, or by countenancing the view that medical men are less solicitous than any of their fellow citizens for the protection of the community from criminal and hurtful acts, whether committed by sane or insane persons.

" In considering whether good grounds exist for formulating a demand for an alteration in the law, your Committee feel that the Association should walk very warily, and make very sure of every step of ground traversed, especially as the law which it is proposed to alter, though it has been subjected to much criticism, has yet for many years given general satisfaction to very high legal authorities.

" The task allotted to the Committee appeared to be twofold—first to show what disadvantages, if any, result from the present state of the law; and second to suggest such an alteration in the law as should obviate these disadvantages.

" To the first portion of their task the Committee have devoted much labour. Guided by the principles above stated they set themselves to inquire:—First: Whether to insane offenders justice is done? Second: If it be not, whether this failure of justice is due to the state of the law? The next step would be to show that improvement could be made by an alteration in the law.

" With respect to the first inquiry, whether to insane offenders justice is done, the following statistics have a direct bearing.

" In the return relating to the Prosecution of Offences Acts, ordered to be printed by the House of Commons, on the 7th of April, 1893, the Director of Public Prosecutions reports, at page 16, that the number of charges of murder brought to his notice in the three years 1890, 1891 and 1892 was 209, which were disposed of as follows:—Verdicts of wilful murder returned, and sentences of death passed, 55; found to be insane, 51; verdicts of not guilty, 40; found guilty of manslaughter or of some crime less than murder, 63; total, 209.

" It will be seen that the number of prisoners found insane was very nearly equal to the number found guilty of the capital offence; and these very striking figures are a positive and unanswerable refutation of the notion that the plea of insanity is habitually overridden, and has but little chance of success.

" The Committee proceeded to investigate the actual facts of the trials in a large number of these cases, a work of great labour and difficulty, as the facts had to be unearthed from reports in local provincial newspapers. This investigation showed beyond question that, in the actual trial of prisoners, the judges generally have not hesitated so to interpret the law as to bring within its exonerating scope cases in which its narrow literal interpretation would have had a different result.

" The result, of the inquiries that have been described above, was that the Com-

mittee felt the ground for a demand for an alteration in the law was dissolving beneath their feet. They found that, as a matter of fact, there did not exist any such amount or degree of injustice to insane offenders as would warrant an application for an alteration in the law. They felt that it was hopeless to expect that any fruitful result could follow an agitation for a revision of the law, unless that agitation were founded upon the fact that the law does in actual practice lead to the improper conviction, as ordinary criminals, of insane offenders. And this fact they failed to establish.

" Still, however, your Committee felt that, although unable to discover a positive failure of justice towards insane offenders, it yet ought not to separate without having thoroughly investigated the state, not only of the law, but of the procedure under the law, with a view to pointing out defects and making suggestions for improvement. The result of their inquiries in this matter is embodied in the following propositions :—

" The first step in criminal procedure is to bring the accused before the magistrates. In every case in which an accused person is brought before a magistrate on a capital charge, the director of public prosecutions is instructed to take charge of the prosecution, and in every such case in which the existence of insanity is alleged or suspected, it is the duty of the same official to cause full inquiry to be made; to secure the attendance of witnesses; and to take steps to ensure that the whole of the evidence is fully brought before the jury.

" Your Committee regards this recent improvement in procedure as a very important safeguard against the improper conviction and punishment of insane offenders.

" The next step in criminal procedure is to bring the accused before a judge and jury, and, if insanity in the prisoner is alleged or suspected, then the first question that arises is whether he is in a fit condition to be called upon to plead to the indictment and to take his trial.

" In trying this issue it appears that the judge is not embarrassed by any rigid formula, but is left free to direct the jury in such terms as he may consider suitable for the purpose of giving effect to the general principles of law applicable to the case.

" Your Committee would consider it very inadvisable to impose any restrictive condition upon the discretion of the judge.

" When a person indicted for a criminal offence is declared to be in a fit mental condition to be called upon to plead to the indictment, the trial proceeds, and the issue to be determined with respect to the sanity of the prisoner is, under the provisions of the Trial of Lunatics Act, whether such person was at the time of the commission of the offence of which he is found guilty, 'insane, so as not to be responsible according to law for his actions.'"

" It will be remembered that at this trial it is the duty of the public prosecutor to secure the attendance of the necessary witnesses, and *to take steps to ensure that the whole of the evidence is fully brought before the jury.*

" It is generally held that the leading authority by which the judge is guided in directing the jury upon this issue, is contained in the answers returned by the Bench of Judges in the year 1843 to certain questions put to them by the House of Lords. It is upon these answers that the controversy as to the propriety and justice of the law has arisen and continued. Into this controversy it is not the province nor the intention of this Committee to enter, but the following observations must be made.

" 1. Judges of the highest eminence have greatly doubted the constitutional propriety of putting abstract questions of that kind to the jury and of getting such answers from them.

" 2. In the words of one eminent judge: "The terms of those answers are not incapable of being so interpreted as to do terrible injustice." And in those of another eminent judge: "The law with respect to the responsibility of criminal lunatics seemed to him in a very unsatisfactory state, and in saying this he had not spoken only his own views upon the matter, because more than one of the judges had expressed the desire that the subject should be reviewed."

"3. On the other hand, the late Mr. Justice Stephen held the opinion that those answers are capable of being "construed in a way which would dispose satisfactorily of all cases whatever.

"4. As already set forth, it appears that as a matter of fact the terms of those answers at the present day are either so construed or so avoided as to dispose satisfactorily of the cases which come before the courts.

"As to the desirability of attempting to supersede the law which is contained in these answers, the Committee have already given a definite opinion. That opinion may now be reinforced by the consideration that the whole of the controversy that has raged around this question, and the whole of the dissatisfaction that has for so long been expressed with the law, have arisen from the putting and answering of abstract questions upon matters not actually *sub judice*.

"Your Committee are constrained to concur in the objections that have been alleged against this course, and cannot but think that the framing and answering of new abstract questions, if it could be brought about, would be but the beginning of a new controversy and of new heart burnings.

"In corroboration of this view your Committee beg to point out that the judges have on their part shown themselves fully alive to the objections alleged against the existing law, but that they have not been, nor is it likely that they ever would be, agreed upon the changes that, if any, are desirable:—That, in fact, some of the ablest and most eminent judges have taken diametrically opposite views of the effect upon the law that would be produced by a given change in its wording.

"It is very important to remember that in the year 1874 a well and carefully considered attempt was made by great legal authorities to restate and codify the law with respect to the effect of madness in cases of homicide; but that, after taking the evidence of witnesses of the highest eminence, the attempt was reported against by a Select Committee of the House of Commons. The framing of a satisfactory formula, capable of universal application, would appear well-nigh impracticable.

"Supposing the prisoner to be convicted at his trial, and that the plea of insanity has been successful, there is, as has been said, no reason to suppose that this non-success is due either to any undue severity of the judge, or to any narrowness or undue strictness in his interpretation of the law, or in his application of the rules of procedure. It is due, in all the cases that have been investigated, to weakness of the evidence of insanity; and when the natural reluctance of juries to convict of the capital offence is considered, it can scarcely be regarded as a matter of regret that they conform to the obligations of their oaths, and convict a prisoner upon the evidence before them.

"Even after conviction and sentence the matter is not irrevocable. It may be that the defence has not been conducted with sufficient skill to exhibit the unquestionable insanity of the prisoner. It may be, and much more commonly is, that there has been a conflict of medical evidence—that the case is one of uncertainty, in which legitimate difference of opinion may exist and does exist, in the minds of skilled observers, as to whether the accused ought or ought not to be considered responsible for his act. In all such cases a very careful investigation is made after the trial, and it is in such cases as these that the Home Secretary and the judge have given the prisoner the benefit of the doubt; and these are the cases in which the sentence has been commuted and the verdict overridden.\*

"Lastly, when the convict is committed to prison and is working out his sentence, he is still subject to medical supervision, and a watch is kept upon him for the supervention of the symptoms of mental disorders. The recent Departmental Committee on Prisons has, among other recommendations, made the following:—'The candidates for medical appointments in prisons should be required to show that they have given special attention to lunacy, and that the medical staff in Holloway and other prisons similarly circumstanced should be strengthened.'

\* The number of cases in which condemned prisoners have been subsequently reprieved on the ground of insanity during the 30 years to 1894 was 31.

"Also—'That weak-minded prisoners should be, as far as possible, concentrated in special prisons and should be under medical supervision; and that it should be considered whether it is right to treat such persons as ordinary criminals.'

"It appears, therefore, that from the time of his first appearance before the magistrates to the time of his acquittal or the completion of his sentence, the mental condition of a person who is accused of crime, and especially of capital crime, is the subject of solicitude to the Executive.

"So far from finding, as has been alleged, that difficulties are placed in the way of proving the insanity of an offender; that judges are prejudiced against the plea of insanity, and conduct trials in such a manner as to nullify that plea; that the law is such as to bear hardly upon the insane offender, even when the judge is willing to bring him within its exonerating provisions; that medical experts are silenced by the rules of evidence and prevented from stating their real opinions of the prisoner; so far from discovering this state of affairs to exist, your Committee have to report that, from the beginning to the end of the proceedings, care is taken that justice should be done, and that the interests of the prisoner should not suffer through the poverty, stupidity, or ignorance of himself or of his relatives.

"Under the state of circumstances disclosed by their investigations, your Committee are unable to make any recommendations for the amendment of the law."\*

The PRESIDENT said that this was the fruit of a great deal of work on the part of the Committee, and especially on the part of the sub-committee to which was relegated the duty of drawing up the Report. The subject was not one for excited action, but ought to be dealt with in a calm and considerate manner. The following statement had been handed to him: "While the Irish Division of the Medicopsychological Association is not prepared to recommend that there should be an alteration in the law defining criminal responsibility, it is of opinion that the procedure now frequently adopted in England and Scotland of having all criminals in whom there is the least suspicion of insanity thoroughly examined by medical experts before their trial, and as soon as possible after the commission of the crime, should be universally adopted, and that their evidence, whether for or against the prisoner, should be laid before the jury. It is also of opinion that more latitude should be given to medical witnesses to explain fully their exact opinion of the mental condition of the prisoner, subject, of course, to the closest cross-examination.—(Signed), CONOLLY NORMAN, Chairman."

Dr. MERCIER, Secretary of the Committee, said: "Mr. President, the matter of this Criminal Responsibility Report stands thus. A Committee has been appointed, and has presented a Report to the Association. The motion was made by myself, and seconded by Dr. Rayner, that the Report be adopted. That was met by Dr. Weatherly with a direct negative. The question before the meeting at the present time is 'That the Report of the Criminal Responsibility Committee be adopted.' The Report met, on its first publication, with a very hostile reception, a reception which, I think, has since been seen to have been due largely to misconception of its nature and partly to errors of fact; and which has to a very large extent (I say it with confidence) died away; and whatever remnant of opposition there may still remain to the Report will scarcely survive a perusal of the masterly and exhaustive memorandum by Dr. Orange which appears in the current issue of the Journal. Dr. Weatherly—whom I regret not to see present—upon the first reading of this Report indulged in several similes. He compared me to a rat, and he compared himself to some variety of dog. I do not know whether in his calmer moments he would adhere to these expressions, but I venture to submit that similes of that character do not carry very great weight when addressed as arguments to a scientific association upon a scientific subject; and when it is remembered that this subject excites a considerable amount of interest outside the bounds of this Association, and outside the limits of our profession, it will scarcely enhance the respect with which our deliberations are regarded by a sister profession, if they are attended by these zoological metaphors. Dr. Weatherly made a great

\* This paragraph was altered on the adoption of the Report.

point of the change of opinion which the Committee underwent after its first meeting ; and although the Association, under the guidance of Dr. Yellowlees, has decided that it need not take account of the matter, yet I feel that some explanation is due to those members who were unable to take part in the later deliberations of the Committee, of the change of opinion which undoubtedly did take place. The first meeting of the Committee was to a large extent dominated and inspired by the ardent spirit of Dr. Weatherly, that is to say there was a very great deal of enthusiasm and there was not a very great deal of knowledge ; and, under the influence of that spirit, the Committee came to a conclusion which it afterwards regretted. I can conceive it to be possible that Dr. Weatherly himself may sometimes say things which he afterwards wishes had been left unsaid. When members object to this Report, I would ask them to what portion of the Report is it that they object ? I have not seen that the facts are disputed : I have not seen that the conclusions are controverted. What I have observed is that there is a great deal of vague dissatisfaction with the Report, because it runs counter to preconceived notions. Now, the cardinal point of this Report is to be found in the first paragraph of page 3. The Committee there say that they felt it was hopeless to expect that any fruitful result would follow an agitation for a revision of the law, unless that agitation were founded upon the fact that the law does in actual practice lead to the improper conviction, as ordinary criminals, of insane offenders. Does any member present contravene that ? Is there any member of the Association who is prepared to go to the Legislature and demand an alteration of the law, without being able to say that the law in actual practice works injustice ? If there is, then I will undertake to say that there are other members who are not surprised that the Committee decline to accompany him ; and I will go further, and say there may be members present who would be interested to stand by and see the reception which such a demand would meet. But is it a fact—and this is the pith and marrow of the whole Report—is it a fact that there does exist any such amount or degree of injustice as would justify a demand for alteration of the law ? If there be, all I can say is that the Criminal Responsibility Committee, after a careful investigation, has failed to discover it. Cases have been found, no doubt, in which it appeared at first sight that the plea of insanity was not established when it might have been, but further investigation showed that this arose because of either a weakness or a direct conflict in the medical testimony. Rare and exceptional cases there were, no doubt, in which this did not appear to be the reason ; but are we to demand an alteration of the law because of the occurrence of rare and exceptional cases ? The Report does not say that we should not make such a demand, but that such a demand, made on such a basis, would have no prospect of success. Is any member prepared to assert the contrary ? Of course, we make no claim to be infallible. We have done our best to discover such cases and we have failed. But if others are dissatisfied with that failure, let them try. The material which was open to us is open to them ; let them make the investigations, and if they find an amount of injustice which would justify a demand for an alteration of the law, this Report does not shut the gate in their faces. All that the Report concludes with is that we are unable to make any recommendation to the amendment of the law ; but that does not preclude other persons at a future time and under other circumstances from making such a suggestion. Those who object to this Report are bound to point out what it is that they object to, and what are the grounds of their objection. The object of the appointment of this Committee was to have the facts calmly investigated, and the reason for its appointment was that there existed in the minds of members a large volume of vague dissatisfaction with the law, and they desired that the facts should be accumulated and marshalled to support that feeling. The Committee claim that they have investigated the facts to the best of their ability, that they have accumulated and marshalled them, and, if the facts fail to support the preconceived notions of members, they are not to blame. The fault is in the facts themselves ; and I submit that this Report ought not to be discarded unless some error of fact can be found in it, or unless some conclusion can be found which is not supported by the facts. If such defects are not found, then I submit

that we are entitled to have this Report adopted by the Association. It has been complained against us that we have acted the part of Balaam, the son of Beor; that we were called upon to curse this law and that we have blessed it altogether. On the contrary, the Association has asked our advice and assistance, as Ahab asked the advice and assistance of Micaiah, the son of Imlah. It wanted us to say, "Go up to Ramoth Gilead and prosper, for the Lord shall deliver it into thy hand;" and because we refused to prophesy smooth things, and foretold the inevitable disaster that must follow, then the precedent of Ahab is to be followed, and we are to be fed upon the bread of affliction and the water of affliction. Well, Sir, we all know what was the result of that course being followed, and how the dogs licked the blood of Ahab by the pool of Samaria. I shudder to think, Sir, of the fate which awaits you if you follow the advice of that false prophet, that Zedekiah the son of Chenaanah, now reincarnated under the style and title of Dr. Weatherly. I have one more appeal to make and I have done. This Committee made a report to the last Annual Meeting, and claimed that, having made that report, it expired. Its claim was not admitted; it was called back to life; its existence was prolonged in spite of itself. I now renew that appeal. We have presented our Report; our labours, I claim, are over, and we are in very truth at this moment defunct. Nay, more: we have expiated our offences in purgatory, with Dr. Weatherly officiating as chief tormentor, and we are now entitled to enter into our everlasting rest.

Dr. OSCAR WOODS asked whether any of the other divisions had expressed any opinion with regard to the Report.

Dr. TURNBULL, speaking for the Scottish Division, of which he is Secretary, said they had discussed the Report, but did not understand that they were expected to announce any decision. He understood the feeling of last Annual Meeting to have been that the Report should be disposed of at the meeting of this year.

Dr. MACDONALD (Secretary of the South Western Division) believed their decision was that the Report should lie on the table.

The PRESIDENT: That is to say, the table of the South Western Division.

Dr. Woods: I was one of those who started this question in Dublin two years ago; and was very much inclined to take Dr. Weatherly's view. However, there is no doubt that the matter has been very ably investigated, and I certainly would not now be prepared to refuse to adopt that Report. It seems to me that those who have had most experience have gone into the matter very thoroughly, and have given us a very able Report; while we who held the opposite opinion have not laid sufficient facts before them to justify their accepting our views. I am now convinced that the time has not yet arrived when material alteration ought to be made in the law. I quite endorse the opinion expressed by the Irish Division that if the procedure were somewhat altered and every case of doubtful sanity enquired into in the very-earliest stage, and if the onus of proving insanity were not cast upon the unfortunate criminal, it would be better. The accused might be poor or might not have opportunity of having his friends properly instructed as to his defence. I think that the Government should put forward experts to state, either for or against the prisoner, the exact condition of his mind. Having heard all the facts and having served on the Committee, although I was unfortunately able to attend only one meeting, I second Dr. Mercier's proposal that the Report be adopted.

Dr. YELLOWLEES: I deprecate that result very much; and I think that Dr. Mercier asks too much. We owe him great gratitude, because he really has been the moving spirit of that Committee and has done a great deal of good work; but we should not necessarily adopt the Report because it contains very valuable matter, and has been brought together with infinite pains. To myself, and I have no doubt to all of us, the Report is very satisfactory in that it brings to light the fact that no great injustice has resulted from the present state of the law—that is to say, that nobody has been hanged who ought not. I am afraid there have been sad and exceptional instances. But it is a little too much to say that *no* injustice has been done, if a man be condemned to death, and lies for weeks under sentence of condemnation, and is found afterwards to have been wrongly condemned, and

in consequence of medical testimony, is *thereafter* reprieved. I do not think that we can be asked to accept a Report which distinctly approves that condition of matters. We ought I think to receive the Report, and thank the Committee for their labours; but for my own part I would not adopt that Report and homologate, or have the Association homologate, all that it contains. I believe that there is room for much improvement in the present condition of matters, and that the fact that no *substantial* injustice is done, arises, not from the state of the law, but from the wisdom of its administrators, who take a great deal in their own hands in the way of interpreting the statutes. I think that it is most right and wise that they should do so, and while we accept that and rejoice in it, we ought at the same time to be very careful not to homologate or approve the law as it stands, for if the law as it stands were administered rigidly I believe the results would be very different. We ought not, it seems to me, to approve any state of matters which implies the condemnation of an insane person and his detention under condemnation until expert medical testimony delivers him. That happens again and again every year. It is not necessary to enter into the general question; and I therefore simply move that the Report be received and that the Committee be thanked for their labours. That does not commit the Association to anything and gives us all the benefit of the Report which the Committee have made.

Dr. MERSON seconded this without remark.

Dr. MERCIER pointed out that Dr. Yellowlees had attributed to the Report what, in moving its adoption, he had repudiated. There was no word in the Report of approval of the present state of the law. What they said was that they were unable to make any recommendations as to the amendment of the law.

Dr. ORANGE: By the kindness of the Editors of the Journal a memorandum which I put together has been published, and it contains practically all I wish to say on the subject. But as regards Dr. Yellowlees' objection to the adoption of the Report, viz., that it frequently happens that prisoners after being condemned are again examined medically and then respite; the first point is to ascertain to what extent that occurs. Tables have been published in the reports of Broadmoor Asylum for twenty years past showing all these details; and when a statement is made on the subject it is very desirable that the real facts should be extracted from them. Moreover, our President gave us a table of the same description in the address which appeared in the October number of the Journal for last year, where figures with reference to the number of criminals found insane after sentence are given in detail (page 584). Taking, then, cases of murder, and remembering that these refer only to England and Wales, we find that from the opening of Broadmoor Asylum down to the end of 1893, 50 men and 25 women were certified to be insane before trial. (I am now dealing with cases of murder as being more simple than mixing them up with others; but it would be quite as easy to deal with all classes, if that were required). Then 65 men and 60 women were found to be insane by the jury on arraignment. 197 men and 141 women were either acquitted on the ground of insanity before 1883 or were found guilty but insane in the years subsequent to that, in conformity with the Statute passed in that year; 33 men and one woman were reprieved on the ground of insanity; 18 men and nine women were certified to be insane whilst undergoing sentences of penal servitude, their sentences having, in the first instance, been commuted to penal servitude for careful watching, as a result of which they were found insane. Here, then, we have 599 persons accused of murder, of whom, if we take only those who were reprieved, the proportion is rather less than 6 per cent. It was stated, I think, that one half of the whole number accused were first of all sentenced and afterwards found to be insane; whereas if, along with the 34 reprieved on the ground of insanity, we also take the 27 whose sentences were commuted to penal servitude, we find that together they represent but a fraction over 10 per cent. That is to say out of 10 murderers sent to Broadmoor on account of insanity, only one belongs to that class in which the verdict has been altered. Coming next to the question whether it is possible to obviate reconsideration by the Secretary of State of the case after sentence, that is quite impossible. It is the prerogative of the Crown exercised by the Secretary of State. *Every* case of

murder, every case where a man is sentenced to death, is most carefully considered, not only cases of insanity, but where that question has never been raised. They are all most carefully considered by the Secretary of State, who has to give the ultimate decision. And this must be so whatever the state of the law. In the case of a prisoner who pleads guilty—so that there is nothing for it but that he should be sentenced—but who is afterwards found to be insane, the Secretary of State has to decide what is to be done, as he also has to decide in the not unusual case where medical men differ. It has not yet been shown that the reconsideration of a sentence is due to the state of the law. If it were, the Secretary of State himself would be one of the first to propose a change. It is now twelve years since the Public Prosecutor was directed by the Attorney-General to make full inquiry in all cases of murder, and to take care that all the facts, whether for or against the prisoner, should be laid before the court. That has been regularly and consistently done from that time to the present. It may be sometimes done better and sometimes done worse. A letter addressed to me a few years ago by the Public Prosecutor indicates his attitude towards cases of this description. He says:—"I quite appreciate the difficulties to which you draw attention, but I can hardly conceive any legal definition of insanity which would remove those difficulties and be sufficiently and satisfactorily applicable to every such case, or even, I think, to the majority of such cases. It seems to me that on such a point as this the law must be more or less elastic and somewhat indefinite, in short that the question must really be one of fact and not of law. The jury have the facts before them, they have the opinion of medical men, and it is for them, putting these two things together, to form a conclusion as men of common sense. I do not myself, therefore, think, if it could be done, that it would be expedient to create a definition which would in any way limit the wide discretion that is now practically left to the medical witnesses who give evidence, and to the courts that deal with cases of this character." I can only say that in my experience the facts have entirely borne out these expressions of the Public Prosecutor. That being so, I think we may well account for the Report which you are now asked to adopt. Two years ago it was suggested that the best course would be to ascertain whether all cases are satisfactorily disposed of; and then, secondly, if cases are brought forward which are stated not to have been satisfactorily disposed of, we should endeavour to inquire whether that was due to the state of the law or to some other cause. Two years have elapsed and we have not had one such case submitted to us for consideration. We therefore felt justified in saying that, "from the beginning to the end of the proceedings, care is taken that justice should be done." Dr. Yellowlees justly observed that this result is very largely due to the mode in which the law is administered. This matter was carefully considered by the Committee of Judges, who, as the Royal Commission appointed in the year 1879 to consider the Criminal Code Bill, expressed the opinion that this difficulty cannot be successfully avoided by any definition of insanity which would be both safe and practicable, and thus many cases must occur which cannot be satisfactorily dealt with otherwise than by an appeal to the Secretary of State after sentence has been passed.

Dr. MERCIER said that Dr. Yellowlees had put the matter so clearly that there was little need for him to say anything in seconding the amendment, but he must add that Dr. Orange seemed to him to have made a speech most strongly confirming Dr. Yellowlees' contentions.

Dr. URQUHART thought it a pity that the matter should go to the vote without some attempt being made to arrive at a conclusion satisfactory to both parties. Dr. Mercier had said over and over again that the Report did not in any way commit them to an approval of the present state of the law. If the Committee would accept an insertion in the last paragraph so that it would read "Under the state of circumstances disclosed by their investigations, your Committee, while not approving of the present state of the law, are unable to make any recommendations for its amendment," that would perhaps carry Dr. Yellowlees and his supporters in this matter, so that they could then approve of the Report and come to a practically unanimous finding. He felt most strongly that they

should discredit the answers given by the judges so many years ago. Science had advanced greatly since these answers were given. While he would be sorry that they should expose their ignorance by setting forth any definite statements at present, he could not but think that it would be misleading if Dr. Mercier's asseverations were not embodied in the Report. In dealing exclusively with the major degree of crime he held that the Committee had omitted much from their investigations and calculations. He protested against the Report being held to contain everything that could be said on the question of criminal responsibility.

The PRESIDENT—It would be impossible for Dr. Mercier to accept this, as he is only expressing the view of the Committee, for which he could not now act. His acceptance of this would only be a personal matter, and unless the Committee met again, I do not see how the Report could be amended in that sense, however much we might feel in that direction. The Report must stand or fall, in my opinion, by its present statements, and by the opinions therein expressed. It would be desirable, no doubt, to find some *via media* by which the result suggested by Dr. Urquhart might be achieved, but in the absence of that we must deal with the two positions before the meeting. If I may to some extent go into what is now ancient history I would remind the Association that this Committee was appointed originally on the top of a proposal that we should make a raid on the Lord Chancellor and explain to him our views on the matter. Here is the Report of the Committee, which, as it was submitted last year, must be regarded as the Report submitted this year. With the expressions in it I most fully agree, and, taking it together with the admirable and complete statement of Dr. Orange in the Journal, I think that we may have every confidence in the statements there made, that they embody the highest possible experience in the matter so far as this country is concerned, and point out the results of an elaborate investigation into the working and the operative results of the law in these cases. The point urged by Dr. Yellowles is not complete, namely, that it is anything of the nature of an impropriety or injustice that a certain number of individuals should be sentenced to death, and, after lying in gaol for some days or weeks, should ultimately be respite on the ground of insanity from the full effects of the sentence. It would be a still graver injustice if a prisoner who was lying awaiting trial should have his mouth shut by a body of experts going to examine him and asking him if and why he committed the offence of which he was to plead the next day "Not guilty." The first consideration must be the interests of the prisoner, and his mouth should not be shut by his being declared insane and without the right or capacity to plead. The small number of cases in which the prisoner was found insane after sentence, amounting only to five or six per cent., indicates how very closely the actual administration of the law approximated to absolute justice. We have to be extremely careful that, in trying to befriend the prisoner, we do not do him a gross injustice by withdrawing from him his first and most essential right—the privilege of pleading "Not guilty." I feel very strongly on this point because in one case where I had to give evidence and report afterwards, the judge, a man of extreme conscientiousness, wrote to me that our rule was too pliable and their rule was too rigid, so that a *m-dus vivendi* between the two had to be found. There are many cases, he said, so much on the borderland that medical men might fairly disagree in their estimate if they left out the motive that actuated the individual at the time the crime was committed. Afterwards he said:—"I cannot understand how you came to the conclusion you did in that case. I had sifted the whole evidence and been extremely careful in the whole matter, and I was quite unable to find any atom of evidence of insanity in the course of the trial." I took an opportunity of seeing him and telling him that I had no doubt he was perfectly right in his decision upon the evidence he had, which, however, was only partial; whereas I had evidence much stronger than any he had or could have in court, the evidence, namely, of the man himself and of his wife; and I explained to him how my mind was so satisfied about the straightforwardness of the man and his wife (who had been nearly murdered while their child had been murdered) that I knew he was not in a position to judge fully without this further evidence in the case. He

at once gave way, telling me I was perfectly right, and that he had not considered that aspect of the matter when he wrote to me. So that in trying to do what you can for the prisoner there is some risk of doing him harm, and we have to be very careful to avoid anything that would prejudice the very result we aim at. I am satisfied with the working of the law so far as I have been able to see it, and that, although the dictum of the judges is altogether insufficient, we have nothing better as medical men or as psychologists to submit to the authorities and ask them to accept from us as a proper ground for amendment of the law as it now stands. The expression of the Committee that "they are unable to make any recommendations for the amendment of the law" seems to me the gist of the whole matter, and if the Association can see its way to adopt it, I am sure it is not being misled either by the Committee's Report or the expressions of individual opinion from those in the best possible circumstances for informing themselves on this very difficult subject.

After further discussion it was unanimously agreed that "the Report as amended be received and adopted by the Association." The concluding paragraph of the Report was amended as follows:—"Under the state of circumstances disclosed by their investigation your Committee, while not approving the doctrines and definitions contained in the Judges' answers to the House of Lords in 1843, are at present unable to make any recommendations for the amendment of the law."

#### PARLIAMENTARY COMMITTEE.

"The Committee begs to report that as the proposed Lunacy Bill has not been produced it has had to confine its attention to the consideration of the best ways of forwarding the various matters on which the Association has expressed its views. The Committee has had three meetings. It has been found impossible to deal with the resolution passed in November, 1893, in favour of the extension of the 4s. grant to pauper cases returned from an asylum to a workhouse. The President of the Local Government Board stated lately, in answer to a question, that such an extension would require separate legislation, which he was not disposed to undertake. The Committee has to point out that such legislation would not be in connection with the Lunacy Law, being a matter of Local Government. The Committee has reason to believe that the authorities are in favour of empowering Visiting Committees to grant gratuities and pensions in cases of death or permanent injury to officers in the execution of their duty, and has therefore taken no special steps beyond adverting to such gratuities and pensions in the resolution below dealing generally with pensions.

"This latter question having been referred to it by the Council, the Committee has considered and dealt most carefully with it, and has framed resolutions on the subject of a scheme for compulsory pensions to all officers. Before doing this, however, it thought it right to ascertain what might be the views of all the persons chiefly interested—much variation of opinion having been shown on the several occasions of the subject being discussed by the Association. A circular was prepared asking for the views of (a) Medical Superintendents, (b) the junior medical staff, and (c) the other officers and servants. The circular was sent to every County and Borough Asylum in England, and the answers showed a remarkable preponderance in favour of such a scheme being pressed on the authorities. Out of 48 answers 35 were in favour, 12 were in favour with slight qualification, and only one was adverse, this being on the ground of a liberal pension scheme being already in working order at the particular asylum.

"On this the Committee invited the attendance of Dr. Cassidy, of the Lancaster Asylum, who had prepared a scheme which commanded considerable support. Dr. Cassidy attended, and was requested to act as a member of the Council *pro tempore*, and the Association is now asked to confirm his nomination.

"The following resolutions were adopted by the Committee:—'That this Committee is in favour of a compulsory minimum scale of pensions for asylum officers and servants, as follows:—A proportion of not less than one-fortieth of salary and emoluments for each year of service by way of superannuation allowance to those

whose duties bring them into constant and direct association with the insane, and who have served not less than 15 years, and are not less than 50 years of age; and to those who are incapacitated by ill-health or injury sustained in the discharge of duty; and not less than one-fiftieth of the same to other officers and servants—the amount in no case to exceed two-thirds of the annual value of salary and emoluments. But this Committee is of opinion that Visiting Committees should be empowered to grant gratuities to deserving servants and to widows and families of officers and servants dying while in the service of the institution.'

"A copy of the above was forwarded to the Secretary to the Lord Chancellor and to the Commissioners in Lunacy.

"The receipt of the communication was acknowledged by the Lord Chancellor's Secretary, and the Secretary to the Commissioners wrote 'That should his Lordship communicate with the Commissioners on the subject it will give them much pleasure to lend their general support to any provision submitted by him which may have for its object the universal and compulsory granting of pensions.'

"H. HAYES NEWINGTON, Chairman."

The Treasurer also read the Report of the Parliamentary Committee to the Council, which was communicated to the General Meeting by desire of the Council.

"The Committee has considered a further question referred to it by the Council, and reports:—

"As to the Report of the Committee on Scotch pensions. The actuary engaged by the latter has shown such an intimate knowledge of the subject that the Parliamentary Committee cannot presume to review the details of the scheme which he recommends. This being 'that an arrangement might with advantage be made by the asylums of Scotland with the Royal National Pension Fund for Nurses. On the whole, if a suitable arrangement is made with that fund it would be more advantageous both to the attendants and nurses and also to the asylums themselves, than forming a superannuation fund of their own or purchasing Government annuities.'

"If the Scottish Committee adopt his view there can be no question of the Association likewise endorsing it, but on general grounds the Parliamentary Committee would suggest a doubt whether, as the principle of a half contribution by local authorities is contemplated, it would not be wise to wait a little to see what fortune the English Pension Scheme may have. If it meets with success it is possible that, that which is accorded to England on one side and Ireland on the other will be granted to Scotland—seeing that the onerousness of the duties in the asylums of the respective countries is the same. Thus contributions would be saved to that extent, while it would still be open, if the pensions are not sufficiently liberal, to subvent them by private contributions as now proposed. Indeed, it might be worth while for the Association to consider whether such a system of voluntary contribution by way of addition to definite pensions should not be organised for the whole of the asylum staff in the kingdom."

The PRESIDENT said the Reports dealt with a somewhat complicated matter, but he had the best reason for knowing that the Parliamentary Committee had given exceptional attention to it, and personally he did not think they could do better than adopt the views expressed by them in their Report. It was a very valuable work, and required persistent effort to obtain the results they were entitled to hope for. He proposed that the Report be adopted.

This was unanimously agreed to.

#### LIBRARY COMMITTEE.

On the report of the Library Committee being called for, Dr. MERCIER rose to ask, as a point of order, if there was any Library Committee, and by whom it was appointed. He had attended every meeting of the Association, and had never heard of a Library Committee being appointed.

Dr. RAYNER believed the Library Committee was appointed by the Council.

Dr. MERCIER stated that in that case it should report to the Council.

The PRESIDENT considered that it might be thought a little excess of zeal on the part of the Council that they should have the report made to the Association,

but it was believed the Association would be interested to know what had been done in the matter.

Dr. RAYNER reported that all the gifts from Mrs. Hack Tuke and Dr. Lockhart Robertson had been carefully catalogued and arranged in the Association's room for its use. If the suggestion of the Committee made to the Council were adopted it would also be possible to arrange for their being circulated. To make the library practically useful increased monetary help beyond that granted by the Council would be necessary—about £15 more being required. It would also be desirable to appoint the librarian on the premises their librarian, who would be willing to undertake the duties of such work at the rate of £10 per year. Dr. Hay had kindly designed a memorial plate for the books, and they had all been book-plated as well as catalogued.

With a view to guiding the meeting with reference to the appointment of sub-committees, the PRESIDENT read the rule relating thereto (CVI.) He was afraid if the election of the Committee took place that day it would be the means, according to the provisions of the rule quoted, of delaying the matter for twelve months, but he did not see any other course open.

Dr. TUKE asked if it would not be competent for Dr. Rayner as an individual to proceed in the matter.

Dr. WHITCOMBE moved that Dr. Rayner, Dr. Beach, and Dr. MacEvoy be appointed the Library Committee.

Dr. MERCIER seconded.

The PRESIDENT said they had been practically acting as such, and the adoption of this motion was merely a ratification of what had been done.

Dr. HAYES NEWINGTON suggested that they should have power to add to their number.

Dr. YELLOWLEES asked for a little more information about the Library Committee. They were in the position of having a number of very valuable books. What were the Committee to do? He asked what the funds asked for were meant to provide.

Dr. RAYNER said in reply that book repairs would be necessary; they would also like to print the catalogue so as to facilitate the circulation of the books amongst the members, and enable members to know what books were wanted in the desirable event of their wishing to contribute further gifts. If the Report had been brought before the meeting he hoped the question would have been decided what use the Association would make of the library—whether it was merely to remain there as a collection of books accessible to only a few members, or made available to all by circulation. In the latter case rules regulating their circulation would have to be laid down, and the matter of an annual subscription from each member or a voluntary subscription from such as used the books, with similar matters, decided. He thought these details should be left to a small Committee to work out.

Dr. WHITE moved that the Library Committee be requested to make a report as to the way in which the books should be used, whether by consultation or circulation, and report to the Council and to the next Annual Meeting.

Dr. YELLOWLEES seconded, believing it to be useful that the matter should be considered.

The PRESIDENT stated that this was what had been done; it had been the ordinary course to report.

Dr. YELLOWLEES remarked that the motion proposed to give the Council powers to go on and make the library available.

Dr. RAYNER pointed out that in three months' time the Committee would be hampered by want of funds.

Dr. URQUHART stated that they could have £10 to go on with.

#### EDUCATIONAL COMMITTEE.

Dr. WHITCOMBE presented the Report of the Educational Committee as follows:—"Since the last Annual Meeting the Educational Committee has revised and improved many of the regulations governing the examinations of the Association,

including the syllabus for the examination for the Gaskell Prize ; considered and decided many matters referred to it by the Council of the Association, and asks to be reappointed."

This was adopted, and the Committee reappointed.

On the motion of Dr. MERCIER, seconded by Dr. WHITCOMBE, it was agreed to appoint a Committee for collective investigation, with power to add to their number, the Committee consisting of Dr. Urquhart, Dr. Helen Boyle, Dr. Hubert Bond, Dr. R. Stewart, Dr. G. M. Robertson, Dr. Ernest White, Dr. Hayes Newington, and Dr. Mercier.

#### ANNUAL REPORT OF COUNCIL.

Dr. URQUHART moved "that the Council prepare a report of the general state and proceedings of the Association each year, and submit the same to the Annual Meeting."

Dr. YELLOWLEES seconded, saying that it was most important that the Association should have from the Council a precis of each year's work.

Dr. WHITCOMBE called attention to the fact that the Council had not had the opportunity of saying a word in the matter. It should, he thought, have been referred to the Council for consideration and report.

The PRESIDENT stated that it had been referred to at the Council's morning meeting.

Dr. WHITCOMBE, however, pointed out that it had been brought up only at the tail end of that meeting.

The motion was agreed to.

#### HACK TUKE MEMORIAL COMMITTEE.

A communication was read from the Hack Tuke Memorial Committee by the GENERAL SECRETARY :—

"The Hack Tuke Memorial Committee beg to inform the Council that the Honorary Treasurer has received up to the present time £288 in subscriptions.

"This money the Committee propose to hand over to the Medico-Psychological Association for the purpose of offering every third year a prize of money, consisting of the interest on the capital subscribed, for the best essay, the subject of which, being strictly in connection with medico-psychology, shall be chosen by a Committee appointed by the Association at an Annual Meeting. The prize is to be open to the whole world, but essays must be written in, or translated into English. The successful essay to be the property of the Association, and to be published in the first number of the *Journal of Mental Science* issued after the adjudication of the prize. The adjudicators are to be specially chosen for each occasion of the award. If on any occasion no essay of sufficient merit appears, the unawarded amounts to be added to the capital of the fund.

"The Committee suggests that the prize shall be offered for the first time in 1897. If the Council approves of this, the Committee would further suggest that the Council should contribute out of the funds of the Association so much as would make up the prize to the probable future amount, since the fund itself would not by that time have accumulated enough interest. If the Council approves of all the foregoing proposals, the Committee will, on being so informed, take immediate steps for the investment of the fund in the names of the Association Trustees.

"G. FIELDING BLANDFORD, Chairman."

After a discussion, in which Drs. Mercier, Macdonald, Rayner, and Hayes Newington took part,

Dr. NEWINGTON proposed that the Association express its willingness to take over the charge of the fund, without going further by way of resolution meanwhile.

Dr. MERCIER seconded.

This having been agreed to, Dr. NEWINGTON proposed that the Association suggest to the Hack Tuke Memorial Committee whether there were not other and better objects to which the fund might be applied than that suggested. He did not think they should in any way appear to dictate to the Committee which was

a purely voluntary one and had worked hard to get up the fund and to consider the best way of applying it. It had given its opinion on the matter, but he believed it was willing to waive it.

This was also agreed to.

#### EXAMINATION PAPERS FOR THE NURSING CERTIFICATE.

A discussion then ensued on the resolution passed at the Irish Divisional Meeting on May 7th. It is as follows:—"In the opinion of this meeting it is desirable that the next Annual Meeting should consider the propriety of arranging that in future the papers issued to the Candidates for the Nursing Certificate be valued and marked by the Examiners in each Division of the Kingdom."

Dr. OSCAR WOODS said the resolution was not passed by the Irish Division without a good deal of discussion, part of which had appeared in the Journal. It was admitted by all, he thought, and even by many English members, that considerable improvement might be made in the mode of examining attendants for the nursing certificate. The resolution implied that the test was not a uniform one. He moved that the subject of the amendment of the examination for the nursing certificates be referred to the Educational Committee with a strong expression of feeling both from the Council and this meeting that the matter is an urgent one, and that everything possible be done to secure that the examination should be a uniform test.

Dr. O'NEILL seconded, and said that there was no question that there was a want of unanimity in the systems by which the papers for the nursing certificates were judged, so that many had come to the conclusion that the papers should be examined by those who had set them. This was done in all examining corporations and universities, and he could not see why an exception should be made in the matter of the nursing certificate. The papers might be divided between six examiners for the kingdom. This would be quite satisfactory, as the Assistant Medical Officers who taught the attendants were more or less in touch with the kind of questions expected to be set. He was however prepared to accept Dr. Woods' amendment, believing that it struck at the roots of the system.

Dr. SPENCE said he could not agree that "a strong expression of feeling" should come from the meeting to the effect that the examinations were not properly conducted throughout the kingdom. He thought they were properly conducted. Only one side of the question had been spoken to; but there was another, and that supported by one of the most eminent men in Ireland who had to do with their specialty. Dr. Conolly Norman, when he examined his attendants, passed a very small proportion compared to the successful candidates from small asylums. Of twenty-five candidates he rejected five, a very fair proportion, he thought. He believed there would be great practical difficulty in referring the papers to one person, that would be impossible in connection with this examination. The present regulations, if carried out, were quite sufficient to make the examination a thoroughly satisfactory one. If the first part of the motion to refer the matter to the Educational Committee were put, he had no objection to it, but he felt that the latter part was too strong.

Dr. URQUHART said he would be glad to second Dr. Spence's amendment to delete the latter part of the motion.

Dr. WOODS said that the facts which came to their knowledge at Dublin compelled them to think the resolution was necessary. It was unquestionable that the test at present was not a uniform one.

Dr. SPENCE said the matter seemed to him to be entirely in the hands of those who conducted the examinations. The assessor saw that the examiner did not pass anyone who did not give a good account of himself, and the rules and regulations, if carried out, were sufficient for the purpose.

Dr. RAYNER suggested that the Educational Committee should be instructed to investigate the matter.

Dr. HAYES NEWINGTON pointed out that the matter was already referred to that Committee by the standing orders. Merely to further refer the matter would be useless. He would suggest that the words "with a strong expression of feeling from the meeting" be allowed to remain, but that the rest be left out.

Dr. URQUHART asked how anything in this world was to be made uniform. They had an Educational Committee, composed of men who knew what they were doing, and a Registrar in Dr. Spence who gave his time in season and out of season. He did not believe they knew how much Dr. Spence had done in regard to this question, and surely the least they could do was to support him in what he thought was the right course on a subject to which he had given so much attention. In seconding his proposal he felt quite sure it would be the best line to take in the circumstances. He felt it would be hard that any slur should be cast by the Association on men who had sent up and passed candidates. He himself would not allow any attendant or nurse to appear who had not a fair chance of passing. One nurse who was rejected had come up a second time and passed. He had sent her written papers to Dr. Spence, who kindly examined them and thought they were a fair average; but examiners could not examine thousands of papers.

Dr. SPENCE did not wish that discussion should be buried. If there were any improvements which should be introduced in the mode of conducting the examinations he would be only too willing to join with those who wished them. It was not a personal matter as far as he was concerned; but he thought it a reflection on the Medical Superintendents of the United Kingdom who had examined candidates to be practically told that they let people through whom they had no business to pass.

Dr. MERCIER was quite sure that the recommendation of Dr. Woods and Dr. Finegan, if sent to the Educational Committee without its tail, would meet with as much careful investigation as if accompanied with that strong expression of opinion which would practically force it to remodel the examination. He did not think such a matter should be determined at the fag end of a meeting.

Dr. CHAPMAN supported the motion as coming from the Irish members of the Association.

Dr. OSCAR WOODS intimated that he had great pleasure in withdrawing the tail which had appeared to create all the dissension.

Dr. YELLOWLEES agreed with Dr. Newington. He was quite sure they never would have the examinations satisfactory with regard to results until the written papers were examined by those who set them. He thought it no reflection on Medical Superintendents and assessors to take this step, as, while human nature remained what it was, there would be men who would pluck their neighbours' attendants. As a matter of fact the examination for the certificate in its results was the most unequal he had known. He thought it might be added that the matter was urgent, and the Educational Committee might consider it at that meeting. Much more might be said profitably on the matter than could be openly said, and from what he knew he believed there was great need for something to be done.

Dr. NEWINGTON said his suggestion was a compromise—that the resolution should be cut in two. He did not propose that the matter should be declared urgent.

Dr. SPENCE did not see much objection to the resolution on that basis, so long as there was no reflection on the examiners.

It was therefore agreed to pass the motion as follows:—"That the subject of the management of the examination for the Nursing Certificate be referred to the Educational Committee with an expression of feeling from the Association that the question is an urgent one.

#### VOTES OF THANKS.

Dr. YELLOWLEES proposed a vote of thanks to the officers who had conducted the affairs of the Association during the year. It would weary the meeting were he to expatiate on their merits, they had done so admirably. Dr. Nicolson's thanks would be accorded him in the afternoon, so that they need not refer to him till then.

The PRESIDENT, in seconding, mentioned that the Association was that day parting with its Honorary Secretary. The value of his work was well known to

the Association, and they all thoroughly appreciated the unsparingness of the trouble he had taken, and were satisfied that he had done all that was possible to further their interests, sparing neither his time nor his mental powers in their behalf. He would like to add to what Dr. Yellowlees had said a rider to the effect that they parted with Dr. Fletcher Beach as Hon. Sec. with deep regret and wished to express their best wishes for his future welfare and success in life.

Dr. YELLOWLEES said his desire for brevity had made him seem to be unjust. He yielded to none in his appreciation of Dr. Fletcher Beach's services to the Association. He heartily deserved their thanks, and he moved that their best thanks be specially recorded in the minutes for the long and faithful services Dr. Fletcher Beach had rendered to the Association.

This was carried with acclamation.

Dr. FLETCHER BEACH, who was warmly received on rising to respond, thanked the Association very heartily for their kind wishes, and expressed his gratitude for the kind manner in which Dr. Nicolson had spoken of his services in the interests of the Association—a cause which had always been dear to his heart. He had always been deeply interested in the Association, and had been glad to watch its progress. They had now a home of their own, which was not the case when he took office seven years ago. They had also become a Registered Company and had a hundred more members. The work had been great, but it had also been pleasant, and he tendered them his grateful thanks for the appreciation they had been pleased so warmly to express.

#### THE AFTERNOON MEETING.

On taking the chair at the afternoon meeting, Dr. NICOLSON, after expressions of welcome to Dr. Percy Smith, who had been good enough to undertake the laborious work of the General Secretaryship of the Association, tendered his resignation and introduced Dr. Mickle, of whom he said that "he knew no one more fitted to support the position with dignity, with learning, and with that knowledge of scientific work of which he was so able an exponent."

Dr. MICKLE, having taken the chair, said he had to thank Dr. Nicolson for the very kind way in which he had referred to his name, and to thank the Association for the very gracious and enthusiastic manner in which they had greeted his appearance in the chair. After alluding to the dignity, ability, zeal and energy of Dr. Nicolson during his year of office, and his elevation to the post of Lord Chancellor's Visitor, he asked the meeting to join in a vote of thanks to Dr. Nicolson, and to pass it with acclamation.

The vote of thanks having been accorded, and Dr. Nicolson having appropriately responded,

Dr. MICKLE rose, and after thanking the Association for the very high honour they had done him in electing him to that office, proceeded to deliver his Presidential Address. At its close,

Dr. SAVAGE said he had heard with the greatest regret of the short instalment of the address that was to be laid before them by Dr. Mickle. It was full to over flowing of interest both from the psychological and the practical points of view, and it was matter for regret they had not had the opportunity of hearing it all; but perhaps they would be able to do more justice to it by reading it at their leisure. His duty consisted simply in moving a hearty vote of thanks to the President for his address. It was a subject that interested them all, and one which appealed to every section of the Association, whether from the medical, the psychological, or the criminal point of view—the question of impulses, the question of obsession. Some time ago, at a meeting of the Neurological Society, it was shown that it was not merely the alienist, not merely those associated with neurology, who were concerned with these obsessions. The more the subject was studied he believed it would be found that there were many things besides obsessions of *mind*, that also the very manners of people, the tricks, the style, were obsessions and had to be looked upon as such. Undoubtedly many obsessions, most of them, had an organic basis and relationship that would lead to the discovery of truth in investi-

gation; and it was of great interest to find that Dr. Mickle's experience accorded with that of so many others, that there were obsessions and obsessions; that there were a group of obsessions that were evidently not insanities; that there were tricks of mind just as of body that were practically of no importance; that a man might have a trick of speech and yet be an orator, that a man might have a trick of muscle and yet be athletic, and that a man might have a trick of mind and yet not be insane; in fact, that a great many people who were eccentric had obsessions. He was sure they would agree with him in according a vote of thanks to Dr. Mickle and in saying that they would hail the paper with satisfaction when it was in print, so that they might consider it more fully as it deserved.

Dr. BLANDFORD, who seconded, said he was sure they had heard the paper with great interest, and would look forward to reading it in extenso. He had himself been much interested in the paper and especially in what Dr. Mickle had said about tricks and eccentricities, and the importance he attached to them. He himself believed they were very important. He had known such tricks handed on from father to son, and had also known what had been tricks in the father develop into insanity in the son; and he was sure that none of these tricks and eccentricities were things to be overlooked. It was important that all such should be checked in children at an early age, and with very great care and assiduity repressed during their growing up.

Dr. NICOLSON said it appeared to him a singularly fortunate subject to have been chosen for the Presidential Address, because not only were they dealing with cases of that sort day by day amongst the patients with whom they had to deal, but it was a subject with which they could each individually sympathise as bringing before them those gross deviations from the normal with which they themselves in their weaker moments had to contend. It was therefore of special value to them in the sense that it was one which they could personally interest themselves in, and sympathise with, and analyse by their own self-introspection, because there was no doubt that at many times (more frequently in some cases than others) they were apt themselves to depart from what was their normal best. The subject was an important one also for them to consider so as to be able to deal with apparent deviations of a similar sort occurring not only among their friends and neighbours, but also in those brought to them for official inspection. He concurred with the proposal to accord Dr. Mickle a hearty vote of thanks for his admirable and suggestive address.

Dr. MICKLE thanked the Association for their kind reception of his address.

The PRESIDENT then intimated that Dr. Walter Channing was present as representing the American Psychological Association. They were very pleased to see him, and hoped he would join in their discussions.

#### LIST OF MEMBERS ATTENDING.

July 23rd, 1896.—Members: F. W. McDowall, H. Rayner, Oscar Woods, E. D. O'Neill, T. Outterson Wood, E. B. Whitcombe, D. Nicolson, Fletcher Beach, P. W. Macdonald, W. Julius Mickle, Evan Powell, Ernest White, David Bower, A. R. Turnbull, Walter S. Kay, A. R. Urquhart, D. Yellowlees, J. Beveridge Spence, W. R. Dawson, D. M. Cassidy, R. Percy Smith, John A. Wallis, J. Bayley, Margaret C. Dewar, Chas. Mercier, H. Hayes Newington, James Greig Soutar, F. Sidney Gramshaw, George R. Wilson, Frank A. Elkins, J. O'C. Donelan, W. Rawes, John Havelock, Chas. Caldecott, H. Rooke Ley, J. Murray Lindsay, R. S. Stewart, John Merson, W. Orange, Wilson Eager, James Chambers, T. Seymour Tuke, C. Hubert Bond, R. H. Cole, Heurtley Sankey, W. Ford Robertson, J. Maclarens, David Brodie, D. Mackintosh, Bonville B. Fox, Strangman Grubb, Henry E. Blandford, J. H. Paul, W. Douglas, J. E. M. Finch, Geo. H. Savage, R. Brayn, H. J. Macevoy, G. T. Blandford, H. M. Eustace, W. Audriezen, J. F. Briscoe, T. A. Chapman. Visitors: Bernard Holland, J. E. Taylor.

July 24th.—Members: A. R. Urquhart, Fletcher Beach, R. Percy Smith, A. R. Turnbull, Margaret C. Dewar, D. Yellowlees, F. Sidney Gramshaw, J. Maclarens, John G. Havelock, Charles Caldecott, T. Outterson Wood, T.

Seymour Tuke, John Wallis, H. Hayes Newington, D. Nicolson, H. M. Eustace, D. Bower, E. D. O'Neill, James Chambers, W. F. Robertson, Bonville B. Fox, Oscar Woods, H. Rayner, H. J. Macevoy, W. R. Dawson, Jas. Greig Soutar, G. E. Shuttleworth, H. Stilwell, J. Peeke Richards, J. H. Chapman. Visitor: J. J. Fraser.

## DISCUSSIONS.

*Dr. G. R. Wilson on "Weismannism and Insanity."\**

Dr. ANDRIESEN said Weismann's position was, that there was a slow and gradual action on the organism in general, and the changes so produced slowly and gradually influenced the germ plasma. Dr. Wilson seemed to deny any distinction between acquired and hereditary characters. That was neither a commonsense nor a scientific view. Observation helped us to see that the germinal elements which were transmitted for generations were the vehicle for the transmission of something. He also criticised Dr. Wilson's statements as to cell multiplication.

Dr. WILSON, in reply, said that his statement with reference to the limit of cell multiplication was quoted from Minot's (?) *Embryology*, and he could only leave that authority to weigh in their minds against Dr. Andriesen's statement.

*Mr. Briscoe's paper on "Heredity in Mental Disease."†*

Dr. CHANNING said Dr. Briscoe seemed to him to have said that Dr. Kingsley had asserted that a narrow palate was never found except where there was mental disease. On the contrary, Dr. Kingsley totally disagreed with Dr. Down on this point, and stated that he found more cases of deformity of the palate among patients who came to have their teeth corrected than among the idiots he examined with Dr. Down. Many of the statements as to the significance of narrow palate with respect to degeneration were exaggerated.

*Dr. Havelock's paper, "A Case of Recurrent Mania."‡*

Dr. YELLOWLEES said no doubt they had all known similar cases, and they formed one of the problems of the psychiatric physician. They ought to be able to cure recurrent mania, but they could not. No form of disease had vexed or disappointed him more in individual cases. He had no doubt that the patient, though apparently well, was not truly and physiologically well during the intervals, but that there was something or other accumulating in his brain that implied a speedy explosion. Moreover, anything which engrossed the man and took him out of doors and out of himself would, he believed, have been as efficacious. It was not necessary that circular mania should become cycling mania. Was it not significant, too, that the patient should recover about the age of 54? At the climacteric period these neuroses sometimes exhausted themselves. The cycling had probably just come at the right time when there was a constitutional change occurring in the brain, which probably had quite as much to do with the recovery as the cycling. He himself would not have dismissed the man so often, but would have earnestly urged him to take at least a year of asylum life in the hope that the explosions would become more rare.

Dr. BONVILLE FOX said a question might be raised, which, if it could be answered, would make the time devoted to the discussion well spent, namely, What is the morbid change that underlies the recurrence in recurrent mania? He could only re-echo what Dr. Yellowlees had said, that of all the disappointing cases that tried asylum physicians and their skill and patience, none beat recurrent mania. They most certainly ought to get well, and the condition be checked; but time after time they failed. It was all very well to say the brain was unstable, as, no doubt, it was; but what was the actual change at the recurrence? Was it a vaso-motor change, as had been suggested? He had tried ergot and similar drugs hoping to check the recurrence, but he could not pretend to have had any success in that way. A case still under his care showed recur-

\* Printed at page 744.

† Printed at page 759.

‡ Printed at page 817.

rences as marked as in Dr. Havelock's, but the patient was never really well long enough to be discharged. He had recurrences lasting perhaps a fortnight, and then for a fortnight was to all appearance as pleasant a man as could be met; but again he would break down. So long as the patient was insane he worked like a navvy. He could not be said to be as good as an extra gardener, but he pretended to do as much work as one. A good deal of his work was destructive instead of constructive, but he worked all day long, and the very first sign of his convalescence was that he took up a book and gave up his work for mooning under trees, in this respect differing from Dr. Havelock's case. With Dr. Yellowlees he believed there was a certain time of life—he would not say climacteric—when in the male there was a probable breaking up of a morbid process and a possible setting up of stability. An alternative, however, was that the vessels (and he imagined these recurrences must denote a certain change in the vessels) could no longer stand the tear and wear and gave way, so that cerebral haemorrhage occurred. From even his own short personal experience he could commend cycling as the means of enormous benefit to the circulation and the health generally, both physical and mental.

Dr. SAVAGE also agreed with Dr. Yellowlees about the disappointing nature of recurrent mania and the difficulty of giving any rational explanation of it. What was the relationship between mind and brain in cases where there occurred from twenty to fifty attacks of acute mania of the most violent description, while in the intervals there was no evidence of any intellectual impairment, loss of memory, of self-control or of acquisition? It was a convenient way of explaining these cases to speak of a collection of nerve force and surplusage followed by explosions. He did not believe it. But, while not comprehending these things, one had to recognise them, and the most characteristic points about them were the disappointment associated with them, and the fact that of two cases exactly alike as regards age and excitement one would have recurring attacks of grave severity with no intellectual loss, while the other would have one or two attacks and be left a dement. He was himself a votary of the cycle; but all good had its correlative evil. He had seen serious results in private practice from patients learning to cycle. It should be remembered in recommending cycling that the patient might prove a more brilliant and apt pupil than the nurse, and he had known of the nurse being left alone far behind.

Dr. WHITE said he should have liked to have known the history of the case between the attacks. He thought the patient's literary efforts should have been forbidden. If they still existed they might throw some light on the state of his mind during the intervals. More care should be exercised with regard to supervision of the patient's life and habits after discharge. In recommending cycling he had insisted that the nurse should become thoroughly proficient first, as without careful watching of the patient severe injury might result.

Dr. HAYES NEWINGTON said he had always considered these cases as indicating vasomotor disturbance. The body and the brain had to make mutual arrangements for each other's comfort, and now and then they fell out. That there was a climacteric element to be considered, two or three cases particularly impressed on him. One patient at twenty had been disturbed in his mind; at thirty-five, while a robust, strong man, he had a similar disturbance; between fifty-five and sixty he returned as a climacteric case, but after two years he got well; then for eighteen months he was treated afterwards as a senile case. He had given rather a favourable prognosis in these cases. As to cycling, some years ago they started a club, as many as five sometimes riding a tandem tricycle, the patients in front, the attendant behind. Not merely the physical side should be considered, but also the mental influence of change of surroundings.

Dr. HAVELOCK, in reply to Dr. Yellowlees, said he doubted any other distraction being as effective as cycling in this case. For the frequent discharges from the asylums he was not responsible, but he considered it the right course. The man was more like a patient passing through a severe epileptic fit than anything else, and getting so well that in the intervals he managed a large business with perfect success, but for which, indeed, he would, on his return, have had to come

as a pauper patient. It would have been difficult to retain a man who was urgently required at home, and who was not going to mope and be a burden on society, but to do his duty. As for supervision between the attacks, he no more needed it than any of themselves.

*Dr. Stewart's Paper on General Paralysis.*

The PRESIDENT said the striking fact with regard to geographical distribution was a valuable confirmation of the fact that, as previous statistics had shown, general paralysis was particularly liable to occur in cities rather than in the country, and especially in those with a large working population, also of towns, such as seaports, with a large aggregation of persons who were in some cases the sweepings of creation and lacking self-control. Dr. Stewart had given valuable confirmation of the effect that general fastness of life and all that it included had upon the production of general paralysis. He seemed to make out very clearly his point with regard to the increase of female general paralysis as compared with male. Up to a certain point statistics had shown a gradually increasing proportion. Dr. Stewart's figures showed that lumping together private and pauper patients there was actually no increase of late in the proportion of females to the total admissions, and that with regard to private cases it was actually a diminishing quantity. Some former writers had declared that general paralysis was absolutely unknown among gentlewomen (using the word in the sense in which it ought to be used). But of late years it had become not altogether unknown, and he was glad to know that that class were freer than they were formerly.

Dr. MERCIER said the final part of Dr. Stewart's paper was extremely valuable, and pregnant with all kinds of suggestions with regard to the prevention of general paralysis. If the principles he advocated could be carried out there was no doubt they could reduce general paralysis to a very small thing indeed. But unfortunately people could not be got to live in what was called a state of "physiological righteousness," they had not sufficient self-control, and it was too much to expect people to do that who were born, as so many seemed to be, to the condition of being fast and loose. The subject of degeneracy had been touched upon, and many of the unfortunate class referred to did show the conditions which in so many cases led to that life which was indeed but the fruition of what in many of them was innate.

Dr. HAYES NEWINGTON protested against the view that general paralysis was chiefly due to wrong living. He could not admit that this generation was much worse than its forbears. He did not see how immorality could increase so suddenly. The change that had taken place within the last 50 years had been enormous. (The President remarked that no one had asserted that general paralysis was chiefly due to wrong living.) Dr. Newington said that at any rate Dr. Stewart's figures were rather used to point that way to the exclusion of some other element they were ignorant of. He considered heredity had as much influence as anything else.

Dr. YELLOWLEES held that the direction in which Dr. Stewart looked for the cause of general paralysis was the truer one; it certainly fitted better with many observations than that of heredity. He had never looked upon general paralysis as one of the most hereditary forms of insanity, although it might be quite true that this generation was not so wicked in special directions as its predecessors; but it was the successor of their wickedness, and the fact that we were not worse than them did not undo Dr. Stewart's position. He was not sure that Dr. Stewart's statistics covered the whole ground of female private patients. A large number of female private patients did not reach asylums at all. If the decrease were a fact, it contradicted the general impression that there was an increasing tendency among ladies towards cigarettes, sherry, and various other things not good for them. The prolonged duration of general paralysis had during the last few years greatly struck him. Patients as to whose being general paralytics he was quite sure, and who according to rule should have speedily died, had gone on for eight, ten, or eleven years, and died as paralytics. The condition seemed to be arrested and the patient have a long period of wellness, able to go about, con-

ducting himself properly, although one was convinced it was a case of general paralysis.

Dr. BRISCOE said he had a patient under his care who had had general paralysis for sixteen years. It was a typical case, the patient having periodical attacks of violence, sending telegrams continually, and writing in an absolutely typical general paralytic style.

Dr. ANDRIESEN said observation had led him to change his mind with respect to the teaching that general paralysis was one of the least hereditary forms of insanity. The hereditaries they had been accustomed to look to had been those associated with ordinary psychoses; but in general paralysis there was often a history of quite a different sort—epilepsy, or gross forms of organic disease, Bright's disease, cerebral haemorrhages and diseases of that sort. Charcot had described general paralytics as belonging to a great neuropathic stock; on the one side being such conditions as tendencies to cerebral haemorrhages and cardio-arterial diseases, and on the other a tendency to megrim, epilepsy and certain neuroses. General paralysis should not therefore be judged in the same way as ordinary insanities with respect to heredity. There seemed to be some special element which made it more of a gross body and brain disease than the other more subtle psychical disturbances. As illustrating a difference between the two classes the ordinary simple psychoses were common among Quakers and in the Church, while general paralysis was rare.

Dr. STEWART disclaimed responsibility for the figures, which he merely took and drew what he considered legitimate conclusions from them. The fact of general paralysis being common in cities must not be taken alone, but along with the other circumstances under which it was frequent. It had nothing whatever to do, so far as figures proved, with the stress of life supposed to exist in cities, as the increase amongst the lower classes was not so pronounced as in the upper; but it was undoubtedly connected with such factors as drink, sexual excess and venereal disease, seeming to be associated, in fact, with an increase of wealth apart from the knowledge how to use it. It was not amongst the sweepings of creation that the disease was increasing, but in quite another class of society. There could be little doubt it was diminishing amongst gentlewomen, and in fifteen years, if the disease decreased at the same rate, should be extremely rare amongst them. The relative difference between general paralysis and other forms of mental disease in respect of heredity as an etiological factor was that in general paralysis it was present in 16 per cent., in the others 22·8. He referred Dr. Newington to the criminal statistics for 1894, which showed that crimes against morals were increasing, especially in persons between sixteen and twenty-one years of age. There seemed certainly to be now less drinking and drunkenness than before; but general paralysis seemed to be replacing drunkenness. The duration of the disease did not come within the scope of his paper; the change of type was altogether another aspect of the case. He thought it extremely likely that the duration of the disease was becoming more and more prolonged.

*Dr. Turnbull's Paper on "Female Nursing in an Asylum Male Sick-room."\**

The PRESIDENT said Dr. Turnbull had brought forward a very important and practical point in the treatment of the insane, and he was very glad to hear how chivalrous his male patients became under female nursing.

Dr. BRISCOE said, that since nursing had in the last decade or two passed through a revolution, they in asylums ought to share the benefit, and he was sure in England the Commissioners in Lunacy would entirely approve the system adopted in the Fife Asylum.

In reply to Dr. G. R. WILSON, Dr. TURNBULL said there were 20 patients in each sick-room.

Dr. SAVAGE said it was often more convenient to place advanced cases of general paralysis and many cases of senile dementia under the charge of female nurses rather than of male. He had patients now under his care who could not be controlled by men, but were controlled as well as possible by female nurses; and the

\* Printed at page 787.

more highly educated and refined the lady nurses were, the more amenable were the patients to such control. There were, of course, many mechanical difficulties which seemed to have been overcome by Dr. Turnbull's plan; but each hospital and asylum would have to make its own arrangements to meet them. The principle, however, was good

*Dr. Andriezen's Paper.*

The PRESIDENT said that Dr. Andriezen's statements about the spinal cord were in accordance with the best teaching of the day, but he did not quite like his inclusion, on just the same lines, of the condition in syringo-myelia with that in tabes and progressive muscular atrophy. It was quite true that in syringo-myelia the intermediate cells were apt to be first affected. It seemed to him, however, that this disease was not a primary affection of the nerve cells at all, but rather a coarse disease which invaded the spinal cord from its central canal, doing so very irregularly. It was like an invading army, it being in many cases a chance which part of the resisting forces it happened to come up against. In some cases it did happen that the cells and structures, connected with the anterior nerve roots or those connected with the posterior, suffered very early in the disease. He would himself prefer, therefore, not to put it on quite the same lines as the other conditions. It was also extremely interesting what already had been published, that in alcoholic insanity or chronic alcoholism (the condition which is brought on in the human being by a definite agent taken in in a definite way) the first cells affected are the polymorphic. That was simply an illustration of the commonplace of pathology that it was the highest and latest evolved form which was least resistant to the forces which tended to break them down. As to the occipital area in the calcareous neighbourhood showing more change than the auditory, Dr. Andriezen would be the first to admit that that must be confirmed by a large number of very carefully carried out observations. He himself was not prepared to take Flechsig's results without further confirmation; they would have to be tested by other capable workers. Even the most capable men brought forward some views and conclusions that were premature, seeing everything that favoured their views and seeming to become blind to what was not in their favour. Whether Flechsig had fallen into that error he did not know, but he preferred to wait for confirmation of his statements. The conclusions about the anterior and middle area of the cortex of the general paralytic being most affected were not new. He had himself proved this to his own satisfaction more than 20 years ago in necropsies carried out with the greatest care. He had taken an average of his cases by measurement to compare the extent of the areas affected by the change which he had many years ago denominated adhesions of the cortex in the various lobes of the brain, and the percentage was by far greater in the frontal and parietal lobes than in any other, and, of the two, greater in the frontal, although not so very much greater, as might have been expected. He took it, therefore, that Dr. Andriezen's recent researches went to confirm those he had made so many years ago.

Dr. ANDRIESEN agreed with Dr. Mickle with regard to the system diseases of the spinal cord and syringo-myelia, which he merely took as an anatomical illustration of the fact that it was a disease affecting the intermediate cells and the other cells afterwards. The other system diseases, everyone agreed, affected certain areas of the brain. As to the changes in alcoholic insanity, it had been observed even by the naked eye that they also occurred in the posterior cerebral artery. He had not been aware of Dr. Mickle's researches, and his own were therefore of value as independent confirmation.

THE ANNUAL DINNER.

The annual dinner of the Association was held on 23rd July at the Criterion Restaurant.

The attendance was large and included several distinguished visitors.

The President, Dr. Mickle, proposed the health of "The Queen and Royal Family," while that of "The Army, Navy, and Reserve Forces" was responded to by Lieutenant-Colonel Yorke, of the Royal Military Academy, Woolwich; "The Houses of Parliament," proposed by Dr. Yellowlees, was responded to by

Col. Brookfield, M.P.; "The Medico-Psychological Association," proposed by the President; "Kindred Associations and Societies," proposed by Dr. Blandford and responded to by Professor Bastian; "The Visitors," proposed by Dr. Savage and responded to by Dr. Wilkes, President of the College of Physicians; and "The President," proposed by Dr. Nicolson, the ex-President. The speeches were interspersed with music under the direction of Mr Chas. Tinney.

#### EXCURSION TO WOOLWICH.

After the scientific work of the Annual Meeting had been concluded, a number of the members made a very pleasant excursion on Saturday, July 25th, to inspect the Royal Arsenal and Royal Military Academy at Woolwich. After having been conducted through the Arsenal and having had an opportunity of seeing the wonderful machinery at work in the manufacture of arms and ammunition, the members were driven to the Royal Military Academy, where they were the guests of Lieut.-Colonel and Mrs. Yorke. Colonel Yorke is the head of that important Academy for the training of cadets, and holds rank in the Royal Artillery, one of the two most scientific corps of the Army. After a short rest the members were entertained at a sumptuous luncheon, and drank with enthusiasm to the health, proposed by the President, of their host, the gallant Colonel, and of their hostess. This lady is a sister of the Treasurer of the Association, Dr. Hayes Newington. In replying, Colonel Yorke gave a short sketch of the character of the training carried on in the Royal Military Academy, and of the scientific aims kept in view in that course of instruction. The party was then conducted over the Academy by their genial host. The members were very much struck by the appliances, apparatus, and arrangements made for teaching the cadets and for their physical culture. Each one of the guests on parting conveyed to the host the gratification the excursion had afforded, with thanks for the generous hospitality that had been so much enjoyed.

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#### THE PSYCHOLOGICAL SECTION OF THE BRITISH MEDICAL ASSOCIATION, AT CARLISLE, 28TH TO 31ST JULY, 1896.

The section was opened by the President, Dr. J. A. Campbell. The address was directed to the consideration of "Lunacy in Cumberland and Westmorland," and is printed in full in the *British Medical Journal* of 1st August, 1896.

After some preliminary words of welcome, Dr. CAMPBELL sketched the characters of the population of these two counties, concluding that they offered definite evidence of Scandinavian origin, and were distinguished by high stature, heavy body and brain weight, accompanied by early maturity and early ageing.

Dr. Campbell, from observations on three generations, has noted families improving and practically growing out of insanity. The suicide rate in these counties, he remarked, is high. Illegitimacy is also high, Cumberland standing next to Shropshire in this respect, and he pointed out that seduction was often a first stage in mental degeneration.

The small landed properties held by statesmen or yeomen, he showed, are rapidly decreasing in number, and he expressed his opinion that the tying of families to one spot for generations, together with the consequent intermarriage, tended to produce general degeneration and insanity. He emphasised this by alluding to the development following change of location.

Dr. Campbell next gave a sketch of the Garlands Asylum and its development, from 1862 to the present time; the last addition being the erection of a house for private patients, under section 255 of the Lunacy Act, 1890.

The increase of insanity was next touched on, and figures were quoted which in Dr. Campbell's opinion "clearly show that insanity cannot be said to be on the increase in these two counties." The statistics of Garlands Asylum show that there has been a decrease in the admission of general paralysis, congenital insanity,

epileptic insanity, and especially in puerperal insanity, while in senile insanity (above 70) there has been a marked increase.

The death-rate from age is increased from general paralysis, but from phthisis slightly lessened. Asylum-caused phthisis is, he believed, diminishing.

Dr. Campbell concluded by expressing doubt as to a change of type in insanity and his belief in progress in curative treatment; he advocated the desirability of smaller asylums combining to employ a skilled pathologist, with a suitable laboratory, and suggested collective investigation by the Superintendents of Asylums through their Annual Reports.

A vote of thanks for the address was carried by acclamation.

#### THE CERTIFICATION OF INSANITY.

This discussion was opened by Dr. RAYNER, who dwelt on the obloquy that had been thrown on the profession in connection with the performance of this function and the disadvantages often entailed by it.

The ethical side of certification was also alluded to.

The delay in treatment, caused by the present Legislative Enactments, the popular prejudice against legal certification and the difficulties of certification in certain cases, was dwelt on at some length.

The danger arising from these causes leading to avoidance of certification, by placing patients under conditions of imperfect control, in unsuitable houses and under unskilled persons, was also pointed out.

Suggestions were made that for the poorer classes, reception houses or hospitals were needed similar to those established by Dr. Manning in Australia, and that for the well-to-do a mode of placing patients under recognised treatment for a short period, without actual certification, as permitted by the Scottish law.

The PRESIDENT agreed with Dr. Rayner that it was much easier to find fault with the present system than to suggest a remedy. A great many of the remarks made applied more strongly to the rich than to the poor. The facility for sending a pauper lunatic into an asylum in England was at present quite great enough.

Dr. A. R. TURNBULL supported the existing procedure of certification. He pointed out that in Scotland the emergency procedure is simple, consisting of a medical certificate that the case is one of emergency, and a special request signed by the acting relative, or for a pauper case by the inspector of poor, which asks that the patient be received into the asylum. A very wide meaning is often read into the word "emergency," and it is in fact used where it is simply more convenient to have the papers completed after the patient's removal to the asylum. It allows asylum detention for three days on the certificate of only one medical man. It is conceivable that the second medical examiner might not agree in regarding the case as insane, and needing asylum care. But this seldom if ever happens, and otherwise the emergency procedure does not involve any risk to the patient of unnecessary detention, more than might possibly occur under the permanent procedure.

Dr. T. OUTTERSON WOOD said that he was desirous of bringing forward the question of placing cases under care and treatment without difficulty. Could not some scheme be devised for early treatment in doubtful cases, so that all the benefit would be procured for the patient minus the certificates, and the stigma which undoubtedly attaches to them? He thought it should be possible for the patient whose insanity is doubtful to be placed under care and treatment on the application, by a relative or a friend, to a magistrate (such application to be accompanied by a written medical opinion), for a judicial order empowering the detention of the patient for a special time. Thus in very many cases certificates would be altogether avoided by the recovery of the patient. In such period of observation doubtful cases would be cleared up by the development of the disease, and certificates when unavoidable would be procured without difficulty. Probably some such scheme would be of great advantage in the case of habitual drunkards.

Dr. YELLOWLEES said that in Scotland they had had for years the very provision that Dr. Rayner and Dr. Wood had desired, and they valued it highly. On the strength of a certificate by a medical man giving a simple expression of opinion that a mentally affected person would be benefited by such treatment and care, the patient could be sent to a private house for a period of six

months, and there treated and cared for without any stigma of legal certification, and without his name being put upon any legal register whatever. As far as he knew the system had never been abused. He did not think, however, that it could be applied to habitual drunkards. They would rebel. Nor would it apply to all cases of insanity, but as far as it went it was very valuable. He thought it was a very clumsy piece of legislation that required the patients in English asylums to be re-certified at stated periods.

Dr. NORMAN KERR corroborated the statement of Dr. Yellowlees as to the value of the provisions of the Scottish lunacy law for putting alleged lunatics under medical care for a time without certification, but there was a large class of cases which were not covered by this provision, so that some further provision was needed as a probationary term of curative treatment with skilled scientific care and attendance.

The PRESIDENT remarked that a part of the Scottish lunacy law relating to certification had been incorporated into the English law, but with certain important changes which made it very awkward in its operation.

Dr. McDOWALL remarked that the recertification of patients in asylums was really not so irksome as had been represented. He found it useful in many instances.

Dr. M. D. MACLEOD said that as a supplement to Dr. McDowall's remarks he might say, speaking as the greatest sufferer under this Act (for in the first set-off he had dropped 129 patients), that under a proper system of registration the re-certification was an easy routine, and the reviewing of cases in a systematic manner from time to time was distinctly beneficial.

Dr. RAYNER in reply remarked that the observations made had supported the views that he had enunciated. With regard to private patients the Scottish procedure covered the ground completely and exactly. He thought that the discussion had shown that there was really a feeling that something more was needed in their procedure in England with regard to incipient insanity, and he therefore moved:—"That the Section of Psychology recommend that the Council of the British Medical Association should consider the desirability of obtaining for England and Wales some provision for the temporary care of incipient and non-confirmed insanity, similar to that which exists in the Scottish Lunacy Acts."

This resolution was unanimously agreed to.

"The Treatment of Mental and Nervous Diseases by Animal Extracts," by Dr. ALEXANDER ROBERTSON, and "A Note on the Thyroid Treatment of Insanity," by W. F. FARQUHARSON, M.B.

These papers, with the consequent discussion, will, we trust, be printed in the January number of this Journal.

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*Judicial Evolution in the Responsibility of Delirium Tremens.* By DR. NORMAN KERR, F.L.S., London.

It having been publicly stated that little regard need be paid to a recent isolated judicial charge laying down the criminal irresponsibility of delirium tremens, Dr. Norman Kerr thought it advisable to trace the gradual evolution of this newer, more humane, and juster legal view of accountability in this malady. The Scotch Lord Deas, in 1867, allowed a plea of delirium tremens in reduction of a charge of "murder" to "culpable homicide," and of another similar charge to "manslaughter," there having been mental aberration short of legally-proved insanity. A like reduction had been frequently allowed by several Scotch judges since. Indeed, in 1889, Lord Young declined to let the case go to a jury, and discharged the prisoner (accused of "culpable homicide"), a married woman who, when in delirium tremens, caused the death of her infant child from neglect and starvation, on the ground that delirium tremens was a disease. Apart from mere reduction of the alleged crime, even weak medical evidence of the presence of delirium tremens was accepted as a complete answer by a jury in 1845, *Reg. v. Watson* (York Winter Assizes), and also in *Reg. v. Simpson* (Appleby Summer

Assizes). In 1865 this plea was accepted in the case of *Reg. v. Burns* (Liverpool Summer Assizes), Baron Bramwell ruling that, though the quality of the act might be known, the jury might acquit the prisoner if they believed he was suffering from a delusion leading him to suppose that which, if true, would have justified the act. A similar acquittal as insane, *Reg. v. Chaplin* (Warwick Assizes, November) took place in 1878, the deliriate having been charged with feloniously wounding two persons, who, he supposed, had been breaking into his house.

In 1881 (*Reg. v. Davis*, Newcastle, April 27th) a verdict of "not guilty" was returned, on the ruling of Mr. Justice Stephen that delirium tremens was a distinct disease, the secondary consequence of drinking. The *Digest* and *Brett* both hold that the insanity of delirium tremens would excuse a man, though voluntarily induced. In 1886 Mr. Justice Day (*Reg. v. Baines*, Leicester Assizes, January) charged that if a man was in such a state of intoxication that he did not know the nature of his act, he was insane in the eye of the law, and that it was immaterial whether the mental derangement then resulting from such intoxication was permanent or temporary. In 1895 Mr. Justice Hawkins ruled that delirium tremens absolved from responsibility. Lord James (1892) laid down that if the delirium tremens has become chronic in its effects, or so advanced as to cause insanity, "it would be scant justice to ignore it on account of the cause which has produced it." So much for major crimes. In minor offences this plea had also been allowed, since Lord Deas received it in a charge of theft about a quarter of a century ago; and in 1888 (Liverpool Summer Assizes) a lady labouring under the effects of delirium tremens, who had stolen a purse, a knife, a diamond ring, and 3s., was acquitted. Of recent years the number of minor charges in which this view had been taken had greatly increased.

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*Hæmatoma Auris.* By W. F. ROBERTSON, M.D., Pathologist, Royal Asylum, Morningside, Edinburgh.

Dr. W. F. ROBERTSON gave a microscopic demonstration upon the pathology of *hæmatoma auris*. The sections illustrated the various stages of the degenerative lesion in the ear cartilage, which, as had already been contended by Fischer, Pareidt, and others, prepared the way for the occurrence of the *hæmorrhage*. Typically this took place from new vessels in the wall of an intra-cartilaginous cyst. It was shown that these vessels were specially prone to a degenerative change, which must render them liable to rupture from slight violence, or even spontaneously. The blood was slowly effused into the cyst, which tended gradually to enlarge by separation of the perichondrium. Sections of recent *othæmatomas* were also shown, illustrating the way in which the blood was effused, and the subsequent changes that occurred in it. A full account of the investigation, together with a review of the previous work on the subject, was published in the *Edinburgh Hospital Reports*, Vol. iv.

The PRESIDENT remarked that cases of *hæmatoma auris* were now more rare than they used to be.

Dr. CLOUSTON said that it was easy to understand that these degenerated areas in the ear-cartilage might set up a *hæmatoma* without the aid of anything that could fairly be called *traumatism*. In such cases ordinary acts of mental nursing might be sufficient to bring out the actual *hæmatoma*.

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*A Discussion on the General Paralytic; his Practical Management and Treatment in Asylums.* Introduced by the PRESIDENT.

The PRESIDENT explained that the intended introducer of this subject had been prevented from being present, and after consultation with one of the Secretaries he had thought it best just to mention this to the Section, and himself to launch the subject briefly, trusting that with such an audience experienced utterances on all points which touched on the matter would flow from many quarters. Some extremely lucky members of their specialty saw little of this fatal and troublesome disease. Others saw a vast proportion. He expected to hear from some of

those present their views as to the increase of general paralysis as a disease. Probably some members might say that general paralysis was several diseases, but they were still dealing with a class of cases which they recognised by this name. He thought that the points which they should keep before them for discussion were the following chiefly, but he hoped speakers would touch on all that occurred to them :—1. How best to treat a general paralytic during his initial excitement, so as to prevent accidents and osseous fractures. 2. During his quiet stages how is he best kept of cleanly habits ? 3. Should he at this stage be specially dieted so that he may not become too fat and unwieldy when he gets to the bedridden stage ? 4. What are the best sedatives to be used during the course of his disease to keep him manageable ? 5. Seclusion. Should it not be used whenever it is necessary for safety in this disease ? 6. The bedridden stage. How best to prevent bedsores.

Dr. M. D. MACLEOD said that in order to give an opening to the discussion he might state that in his opinion there were no general lines which could be laid down for the treatment of a general paralytic. With regard to the alleged increase of the disease, he was inclined to think that he saw fewer cases than he used to see. Seclusion was not only beneficial, but absolutely necessary. In his experience no sedative was of any benefit.

Dr. RAYNER thought that overfeeding and the giving of narcotics were often very harmful in general paralysis.

Dr. CLOUSTON said that in the early stage he was now in the habit, in specially acute and risky cases, of combining seclusion with sulphonal. He gave the sulphonal in from 30 to 40-grain doses dissolved in hot milk, a method of administration which a German experimentalist had found to entirely prevent hæmatoporphyrinuria. After the first day the patient became sulphonal-drunk. About the third day a condition a little short of sulphonal coma was produced, and then he diminished the dose. After a week or ten days of this treatment the general paralytic passed quietly and without accident into the second stage of the disease. He had tried this plan in several cases, and, looking to the incurability of general paralysis, he believed that it was one that they were justified on medical grounds in adopting in a certain carefully selected number of instances. If the case did not seem to justify this method of treatment he thought the next best thing to do was to put the early general paralytic in charge of one of their best attendants, to isolate him as far as possible from other patients, and to feed him on a non-stimulating diet. There were some cases in which the motor energy was best expended in work. At the present day there was perhaps too much tendency to think of the prevention of accidents, such as broken ribs in cases of general paralysis, to the exclusion of a large general and scientific view of the disease. With regard to the third stage of general paralysis, he had never himself been unduly proud of the absence of bedsores. He did not think that they were justified in wearing out the patient by subjecting him to too frequent turning, drying, etc. He did not believe that even the most skilful nursing could always prevent bedsores, though they all knew that it could to a large extent diminish them. The trophic condition of the general paralytic was frequently so bad that bedsores would often arise without the influence of pressure at all. Turning over such patients meant a great deal of fatigue to them and their end was hastened thereby. In his experience general paralysis was certainly increasing. Within the last five years the number of cases of the disease admitted to the pauper department at Morningside had been doubled in proportion to the admissions. But he did not see so many of the old classical type of general paralytics. Looking to the known causes of general paralysis he believed that its increase was the result of over-exciting living, especially in cities, and he did not believe in the syphilitic origin of the disease, though he admitted that there were facts which might point that way. The Vienna School of Psychiatry seemed lately to have committed itself to the syphilitic etiology of general paralysis, regarding it in fact as a "Spätform" of syphilis.

Dr. MICKLE described the method of treatment for the excitement of early general paralysis which he preferred, including dieting, purgation, bathing, cold to head ; and also seclusion for the worst cases ; as well as the use of some of the iodides and bromides. The prevention of fractures or injuries was thus best effected ; and

this object in some cases could only be secured by *prolongation* of the plan of treatment proposed; or of such plan of treatment as might be adopted. Bedsores were in some few cases absolutely unpreventable, and a case in proof of this was detailed at some length.

Dr. McDOWALL (Morpeth) said he thought general paralysis had distinctly increased in Northumberland, especially among men.

Dr. A. R. TURNBULL (Cupar) said that there certainly appeared to be an increase in the number of general paralytics, probably from a greater readiness nowadays to send into asylums cases of the quiet type who formerly would have been treated at home. For cases in the third stage he used a mattress in three sections, in the centre of which there was placed a small water-cushion and a tube for draining away the urine. Turning the patient was thus rendered unnecessary. He had found that bedsores which would not heal when the patient was on an ordinary mattress, often closed when an apparatus of this kind was resorted to.

Dr. SEYMOUR TUKE said that in the South there had certainly been a change of type in general paralysis. Whether education had to be considered as a point in this change, and especially in the change of type of delusion, had to be further considered. Dr. Clouston's remarks on sulphonal and treatment were exceedingly interesting, but to say the least the cases would have to be carefully selected. There was another side to the bedsore question, for unless preventive measures were taken, a condition necessitating just as much moving about would come to exist, for the bedsore had to be treated.

Dr. A. CAMPBELL CLARK said that Dr. Clouston's plan of treating early cases was an attempt to push the patient through the first stage as quickly as possible, and this involved a certain amount of risk. He had not been able to confirm Dr. Bevan Lewis's views upon the prognosis of duration, especially with regard to the pupil symptoms. In his experience only a very small proportion of general paralysis could be attributed to syphilis. Bedsores should be prevented because they produced a most insanitary condition in the hospital, from the surgical point of view.

Dr. YELLOWLEES expressed his distinct disapproval of Dr. Clouston's method of treating the first stage. Bedsores ought not to occur if they could be prevented. He agreed with Dr. Mickle that trophic changes sometimes caused bedsores in spite of every precaution.

Dr. CLOUSTON thought that he must have expressed his views as to the sulphonal treatment of general paralysis so as to be misunderstood. As a matter of fact he had only used it in that way in about three cases within the last five years. They were extremely bad cases, cases in which one was driven to extremitiess.

The PRESIDENT said he agreed with Dr. Mickle that it was sometimes impossible to prevent bedsores. He had seen a general paralytic take thirty epileptic fits and have bedsores all over him within twenty-four hours. He used dusting with tannic acid to prevent bedsores.

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*The Hospital Movement in Scottish Asylums.* By Dr. MACPHERSON (see page 778).

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*The Hospital Treatment of the Insane in Asylums.* By T. E. K. STANSFIELD, M.B., Senior Assistant Medical Officer, London County Lunatic Asylum, Claybury.

Attention was drawn to the harm that may sometimes be inflicted upon recent recoverable cases by the massing together in a large building all sorts and conditions of patients, and the difficulty of sufficiently focussing attention on these presumably recoverable cases. The desirability of much earlier treatment of mental cases was insisted upon. To aid this, he suggested the establishment of central receiving hospitals (if connected with a general hospital and medical school, so much the better), with an experienced staff, where patients might be received for short probationary periods, on the recommendation of medical practitioners, and there be closely observed. The stigma of going to an asylum would in some instances thus be avoided; the remainder would be transferred to the asylum, but

yet would have been under close medical observation throughout. He laid stress on the fact that, in dealing with the insane, there were two classes to care for, the recent, recoverable or "hospital" class, and the chronic or "workhouse" class; in other words, that an institution for the insane pauper class should be a combination of a general hospital and a workhouse. The hospital portion of the institution, he would have centrally placed and connected with the administrative department; it should have all the appurtenances of a general hospital; the wards should be of small size, with a larger proportion of side rooms than was usually now provided, and these should be arranged so as to minimise noise. The accommodation of this part of the building should be two-fifths of the anticipated yearly admission rate; the staff should be thoroughly trained, with every possible means for modern treatment and research. For the other sections of the institution where the chronic insane are to be nursed, he would suggest a trial of the cottage system.

Dr. GEORGE M. ROBERTSON said that at Murthly the convalescent department consisted of a detached house, to which the patients were drafted as they improved, and the benefits of such a place had been more than one could believe. This house had no asylum or hospital features, it was highly decorated, better furnished than asylum wards had been in the past, and it had a special name. Patients in such a detached house felt as if they were not in the asylum, their self-respect rose, and they cast off their asylum habits and assumed their natural ways.

Dr. URQUHART referred to the difference of opinion as to the cases proper for treatment in asylum hospital sections, whether all recent admissions should be admitted and so on. He would particularly say that each physician must develop the institution under his care on the lines most suitable in the special circumstances of each case. As one who had built a special hospital, nearly ten years' experience had approved the departure then made at the Perth Royal Asylum. With regard to the cottage or villa system, that had long since been firmly established as eminently desirable.

Dr. CLOUSTON said he admitted to his hospital not merely bodily sick cases, but all very weak melancholiacs, all puerperal and lactational cases, and all cases where bodily nursing was, as it were, the key-note of treatment.

Dr. YELLOWLEES said that the whole asylum was a hospital, or things were wrong altogether. What they really wanted was that the hospital spirit should pervade the institution.

Dr. S. R. MACPHAIL asked if Dr. Macpherson could recommend them to adopt female nursing in the male wards of asylum hospitals.

Dr. A. CAMPBELL CLARK said he thought it was not convenient to have special wards for special kinds of cases in asylum hospitals. The cases requiring hospital treatment did not usually classify themselves in the way anticipated.

Dr. A. R. TURNBULL said that, at Montrose, Dr. Howden intended his hospital building for cases of bodily illness, and still received his newly admitted patients in a ward of the old building. At Larbert, Dr. Macpherson received all his admissions into the hospital building, while he had a subsidiary sickroom in the old building for cases of bodily illness occurring among the chronic patients. The recent admissions and the cases of bodily illness occurring among either the new or the chronic patients were now received into a new hospital building at Fife, but into separate sections or wards of it, thus combining to some extent the ideas followed out separately at Montrose and Larbert. Ready communication between the different buildings, so as to facilitate the removal of patients from one part of the asylum to another was a great advantage; it moreover allowed of structural arrangements by which female nursing could be utilised more or less on the male side. In the Fife Asylum the male sickroom was staffed entirely by female nurses. His experience of this arrangement was exceedingly favourable.

Dr. URQUHART asked for information as to the cost of these hospitals.

Dr. MACPHERSON, in replying, said that he employed three female nurses in his male hospital. Regarding the cost it was under two hundred pounds per bed, but that could not be legitimately compared with the lesser cost incurred in erecting separate houses for the purposes described at Murthly.

*A Discussion on the Use of Sedatives and Hypnotics in the Treatment of Insanity.*  
Introduced by L. R. OSWALD, M.B., Medical Superintendent, Gartloch  
Asylum, Glasgow.

In opening the discussion on the use of sedatives and hypnotics in the treatment of insanity, Dr. OSWALD commented on the very different views held by alienists as to their usefulness, and on the degree and frequency with which they were prescribed in different asylums. He believed that a drug-induced sleep was often bought at too high a price, and he regretted that in the construction of asylums more attention was not paid to specially arranged rooms where all the external causes of sleeplessness would be minimised. He regarded indication of failure of strength as the chief symptom making urgent the procuring of rest in acute cases, and laid special stress on the necessity for making sure that the absence of sleep was not due to some peripheral irritation. Taking acute cases generally his experience led him to prefer sulphonal. It had few bad effects, and it tended to restore the broken sleep-habit. It had a slightly diuretic action as well, and it did not depress. He had given it hypodermically in two cases without local inflammation following. It was unfortunate that in the rush for new drugs so many of the older sedatives and hypnotics had been forgotten. How often was conium juice prescribed now, and was digitalis as often used as its calmative power undoubtedly deserved? He believed it was one of the dangers to guard against, namely, that of falling into the habit of using one or two sedatives to the exclusion of others. Chloral especially, when combined with one of the bromides, was most useful as a day sedative, a term to which he took exception. It might not be so effectual as sulphonal, but its bad effects were fewer. The bromides, combined with cannabis indica or hyoscyamus, could be pushed to much larger doses than were generally given, and were powerfully sedative. Sulphonal he used as seldom as possible, believing that its action was accompanied in many cases by a destruction of the red-blood corpuscles. The belief that its administration produced a mild dementia was a growing one. Its value in chronic mania was undoubtedly, but its use tended to mind weakening. It cut short periods of excitement, but the patient did not regain mental clearness. Morphia was not so useful as opium, and his experience of hyoscine and hyoscyamine was not favourable. He confessed he had failed to come, in a very limited experience, to any definite conclusion regarding the use of these drugs. Useful they were, but not nearly so essential to the treatment of patients in an insane hospital as many supposed. A diminution in the frequency with which they were prescribed would lead to the development of other means for treating the symptoms for which they were given. They were not the best hypnotics and sedatives. These were found in exercise, work, distraction of thoughts, amusement, and the like, but the scope of the discussion did not include these. In the treatment of the insane in private houses their use could often not be avoided, and if they did—as he believed—in many cases retard recovery, he saw in that a strong argument for the treatment of mental diseases in asylums. In asylums when they had to be used he preferred a pure hypnotic like paraldehyde or alcohol, and in other cases chloral with bromide, or bromide with cannabis indica. Sulphonal he never gave without feeling that he might be setting up a morbid condition over which he would have little control.

The PRESIDENT said that, regarding the curative influence of hypnotics and sedatives in insanity, he thought they had none. He was certain that the continuous use of such drugs for any length of time had a tendency to retard recovery.

Mr. M. D. MACLEOD said sulphonal had a distinct appetising effect. He never saw any real harm result from a proper use of sulphonal. It usually did harm in cases of folie circulaire. It might shorten the excitement, but it prolonged the depression and clouded the quiescent period. He used fewer drugs of that class than he used to do. The most efficient hypnotic he had found was a solution known as bromidia. He had used no preparation of opium as a sedative, only as an anodyne. Hyoscyamine was occasionally of use, and in moderate doses allayed the restlessness of certain organic cases, such as those of brain tumour, more effectively than any other drug.

Dr. YELLOWLEES said that they as yet knew very little about the action of hypnotics and sedatives, and consequently they were very often working in the dark in using them. If he were to sum up his convictions about their employment in insanity he would say "the less the better." There should be a definite distinction drawn between the extent to which such drugs were given in incurable cases, and in cases in which there was a reason to believe that recovery might take place. They should put up with a great deal from a curable patient before they ran the risk of the brain-cell injury which these drugs were so apt to inflict. They always retarded, and sometimes even prevented recovery.

Dr. McDOWALL said that he used to give hypnotics very freely, but now he employed them very rarely indeed. He still used them extensively in one class of cases, however, *viz.*, melancholia. He had been told by patients that physicians did not properly understand the great misery of sleeplessness. To diminish this he gave his melancholiacs chloral, sulphonal, or other hypnotics. He never used such drugs in cases of mental excitement. He practically never gave morphia or hyoscine.

Dr. J. CARLYLE JOHNSTONE said that in prescribing sedatives and hypnotics in the treatment of insanity he would act upon the same general principles as those which would guide him in treating other diseases. If recovery was not being promoted under their use, if the patient could not be said to be better than he was before, he would say that, even although sleep and quietness had been produced, they had failed in their purpose.

Professor GAIRDNER said there was one disease which could hardly be looked upon except as a form of insanity, in which he had had some experience of hypnotics, *viz.*, delirium tremens. He remembered the time when the administration of opium and stimulants in high doses was the orthodox treatment. He believed that in that way they simply poisoned the patient, and he concluded now that no narcotic whatever should be given in this disease. Dr. Oswald had spoken of the action of sulphonal in destroying the red-blood corpuscles. It was of the highest importance that they should be on their guard against the secondary actions of such drugs, for they were often very injurious.

Dr. A. R. TURNBULL said he thought these drugs were very useful in tiding over an emergency. He had found sulphonal most useful, and he had never seen any ill effects from it.

Dr. DOUGLAS said that the most valuable use of hypnotics was to be found in that period which preceded the state in which a patient could be certified. They could often tide over a crisis at such a time by means of drugs. He had found croton chloral and bromides of the greatest value. He also recommended tetronal in ten-grain doses as a hypnotic.

Dr. OSWALD, in replying, said that from his own point of view he would prefer if possible always to do without hypnotics. He thought that in the future much more was to be done to combat sleeplessness by other means than that of drugs.

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*The Modes of Provision for the Chronic Pauper Insane.* By A. R. TURNBULL, M.B. Edin., Medical Superintendent, Fife and Kinross District Asylum, Cupar.

The modes of providing for the chronic pauper insane may be classed under two heads:—(1) Institutional Care, comprising (a) Asylums and (b) Wards for Lunatic Patients in Workhouses or Poorhouses, and (2) Private Care. After referring to the practice in different countries, Dr. TURNBULL said that the lunacy legislation already established, the density of population, and other social conditions, make it practically certain that in this country the great proportion of our insane cases must always be provided for in institutions; but it is deserving of inquiry whether the system of private care could not be developed and utilised to a greater extent than at present. It has been followed in Scotland for many years, and provides in a satisfactory way for more than 20 per cent. of the total number of cases on the official registers. The patients suitable for this care are those who are not dangerous to themselves or others, and not offensive to

public decency or amenity. Those suffering from the less severe forms of congenital defect, from moderate dementia, or from mildly delusional forms of mental derangement, come often into this class. Patients labouring under more severe forms of insanity or under organic disease of the brain have sometimes been placed in private care; and in Berlin the system is also followed to secure the removal from the asylum for a limited time of cases of remittent or periodic insanity; but in these conditions all the circumstances of the patient and of the guardianship should be very carefully considered. The objections to the system are the difficulty of finding guardians, and the risk that the guardianship provided may be inefficient. Experience in Scotland and elsewhere has shown that suitable guardians can be got in greater number than might at first be expected; and the risk of inefficient guardianship is minimised when the patients are under careful and regular inspection by responsible authorities. Central supervision and control by a General Board of Lunacy or corresponding authority is essential for the success of the system. In Scotland objection has also been made to the aggregation of relatively large numbers of patients within a limited district, and this should be guarded against, both for the sake of public amenity and because it is contrary to the interests of the patients themselves. In regard to institutional care, the lunatic wards of workhouses or poorhouses are meant to receive only cases in which the hope of ultimate recovery has been given up. They take the place so far of the chronic wards of the asylum, and in this way they lighten the dead weight of chronic lunacy which would otherwise gather in the latter, and leave it free to deal more readily with the more severe and more helpless forms of insanity. Under our present system it is perhaps neither desirable nor possible to forego the accommodation supplied by the workhouses and poorhouses. But it is probable that a proportion of the cases kept there could be provided for suitably under private care, if the latter were developed, and it is also questionable if it is expedient to place the care of any section of the lunatic poor with the authorities charged with the administration of relief to the ordinary poor, because the lines of work are necessarily very different in the two cases. Those patients who are not suitable for private care would probably be maintained as efficiently and as economically in the asylum as in the workhouse; but there is the great objection that this would add considerably to the size of our asylums, many of which are already much over-grown. The remedy for this would be to subdivide the lunacy districts sufficiently, so that the asylums would be more numerous, but more moderate in size, with a smaller annual number of admissions and a smaller burden of chronic lunacy in each—a change which would probably be beneficial both for the patients and for the institutions. In this view it would be desirable that no asylum should have more than 1,000 patients, and perhaps the number might with advantage be restricted considerably below that figure.

The PRESIDENT said that there were one or two commonly accepted beliefs about this subject that were capable of correction. Dr. Turnbull had almost hinted that there was no proper inspection in England. But there was a power of inspection, whether it was carried out or not. The Commissioners in Lunacy were now exactly the same in number as when the Board was constituted. These six officials inspected over 90,000 lunatics each year. He thought that the amount of work that the English Commissioners did was not properly realised. It was to be remembered that the Scots had the benefit of the working of the English Lunacy Act for ten years before theirs was drawn up, and they had the advice of two of the English Commissioners. The boarding-out system had really been begun in England by Sir J. C. Bucknill, and not in Scotland. It would certainly be an advantage if the advice of the asylum physician was taken about patients who were boarded out.

Dr. URQUHART said that he thought the boarding-out system of Scotland was most valuable. He disagreed with Dr. Sibbald when he said that medical officers of asylums were not specially suited to superintend patients in private dwellings. Such a dictum was a wrong to the physicians of their specialty. They ought to be the centre of the lunacy administration in the district in which their work lay. They ought to have the power to place their patients in the positions that they thought best, and should not lose interest in them because no longer actually in

the asylum. His opinion was that this Association should take up the question of the number of the Lunacy Commissioners in England, and urge upon the Government that it should be increased. It was absurd to suppose that the same number of men as were required when the Commission was constituted could now overtake the work as efficiently.

Dr. CUMING (Belfast) said he believed that the relation between asylums and workhouses was unsatisfactory; he hoped the section would give as much light as possible on the subject of what class of cases could be justifiably transferred to Union hospitals.

Dr. CARLYLE JOHNSTONE also considered that boarded-out patients should be under the supervision of the Asylum Superintendent of the district.

Dr. GEORGE M. ROBERTSON said that the majority of cases that were sent out were those whom the Superintendent felt certain did not need daily inspection by a skilled alienist, but who simply required ordinary home comforts.

Dr. TURNBULL, in replying, said that he did not at all mean that the English Commissioners were slack in their work, but he thought that more of them should be appointed, and that the boarding-out system should be adopted. The service of the asylum medical officer should be utilised for the boarded-out patients. He agreed with Dr. Cuming that the workhouse was not the place to send patients to from the asylum.

Abstracts of papers and discussions on "Morbid Shyness," by Dr. H. Campbell; "Insanity in Children," by W. Ireland, M.D.; on "Mental Strain in Education," by G. E. Shuttleworth, M.D.; and on "Post Influenza Insanity," by Dr. Rutherford Macphail, are postponed to the January number.

#### PATHOLOGICAL EXHIBIT.

Dr. R. W. Philip (Edinburgh) showed a preparation of brain in the Annual Museum, which was of interest as having been taken from a case of hemiplegia with aphasia following on pulmonary phthisis. The most careful examination, with naked eye and microscope, failed to discover any pathological change. Dr. Philip has described this rare case in the fourth volume of the *Edinburgh Hospital Reports*, to which reference should be made. Some slight degree of engorgement of the veins on the surface of the brain and a trifling degree of softening of the left hemisphere were noted, but it is apparent from Dr. Philip's statement that there was no cerebral lesion in the ordinary sense.

#### RECENT MEDICO-LEGAL CASES.

REPORTED BY DR. MERCIER.

*Reg. v. Allen.*

Herbert E. Allen, 23, barman, was indicted for the wilful murder of Henry James Skinner. Deceased was manager of a Bodega in which prisoner was employed. The deceased, who had been a kind master, had occasion to discharge the prisoner. Two days after, the prisoner called at the Bodega, and, with a revolver, shot Skinner dead.

It was proved that the prisoner's father had attempted suicide; that a brother at the age of fifteen had committed suicide; that a second brother had attempted suicide; that the prisoner had had, about six months before the crime, a fall from a tree, by which his jaw was broken, and that since this accident his disposition had been changed. Before it, he had been kindly disposed and would do anything for anyone. Since, he had been of a sullen disposition, gloomy, irritable, and depressed. He would fly in a passion for no earthly reason, and when in a passion seemed to lose control of himself. Several of his associates considered after the accident that he was "going daft," and was not responsible for his actions. He suffered since the accident from intense pain in the head, and optic neuritis.

Dr. Whitcombe, Medical Superintendent of the Winson Green Asylum, called by the defence, deposed that he examined the prisoner on behalf of the Crown on five different dates. "I found the prisoner intelligent and of good memory, and apparently unreserved. . . . His conversation was lucid and collected, and

there was no effort at simulation. At the same time I found a great disposition to disregard his own life and to look upon the act he had committed with levity." . . . Do you form any opinion upon the evidence given here to-day?—I formed the opinion previously that the prisoner at the time this act was committed was conscious of the act, but that at that time he was suffering from brain disease, which would have the effect of weakening his mental powers, and that that disorder has not yet passed away.—What do you say as to his condition as to suddenly developing definite symptoms of insanity? I think the prisoner is peculiarly liable at any moment to show active symptoms of insanity.—Might that be in the direction of homicide? It might be in any direction—including homicide? Yes.—What do you say as to the hereditary taint in the family? There appears to be a neurotic tendency in the family, and a peculiar tendency to disregard their own lives and to play with firearms. There also appears a disposition to suicide. I think the complaints about the head are consistent with the disease from which he was suffering.—What effect would they have on the prisoner? To weaken his mind.—What do you say as to the tendency to insanity? The tendency to insanity is much increased by the disease.—Judging from his actions would you say he was developing insanity? I think he has shown the early symptoms of insanity.—Previously to the act? Yes, speaking from the general evidence.—Might this act have been the climax of the symptoms? There is nothing about his symptoms that points to such an act developing.—But might it? It might have been, certainly.—Cross-examined: When I examined him I found him a sane man.—Do you think this man when he shot at Skinner knew perfectly well that he was shooting Skinner? Yes.—Prisoner was suffering from inflammation of the membranes of the brain, but not sufficient to obscure the knowledge of what he was doing.

The Judge directed the jury that the question for them was a very simple one. Did the prisoner know what he was doing when he shot Skinner, and did he know that it was wrong to do it? He then paid a very high compliment to Dr. Whitcombe, and wished that other doctors who had to give evidence in such cases would acquire as much knowledge of the law. (Dr. Whitcombe had asked for and received permission to read in Court the notes that he made when examining the prisoner on behalf of the Crown. A part of these notes consisted of statements with regard to the crime made by the prisoner. These statements Dr. Whitcombe refrained from reading, at the same time handing the notes to the Judge in explanation of his omission. It was this course on the part of the witness that was so warmly commended by the judge.) If the jury thought that the prisoner knew what he was doing when he shot Skinner, they must find him guilty; but if, on the other hand, they thought that he was not capable of appreciating the consequences of his act, they would acquit him.—The jury having consulted for forty minutes returned into Court and asked to have the evidence of Dr. Whitcombe read over to them. Eventually they found the prisoner guilty but strongly recommended him to mercy. On being asked in the usual form if he had anything to say, the prisoner read a remarkable statement to the effect that as long as he could remember he had always, whenever a misfortune befell him, turned his thoughts instantly to suicide; that he had several times attempted suicide; that in taking the life of a fellow creature his intention from the first had been self-murder; that it had been only the hope and the certainty that he would be condemned to death which had prevented him from committing suicide while in prison. "I have tried," said he, "other ways to get rid of myself, but that does not matter now, as you are going to do it for me, and I am very pleased that I shall not commit suicide after all. I . . . trust no one will petition the Government for a reprieve for me, as I should only strangle myself the first opportunity if you obtained one.—Birmingham Assizes, March 16 (Mr. Justice Grantham).—*Birmingham Daily Post*, March 17, 1896.

The criminal was clearly a man of morbid mind. He inherited a strong

tendency to suicide, and the effect of the fall had been to produce organic disease of the brain, or its membranes, or both. His companions had considered before the crime that he was "going daft," and one of them had actually told him that he was mad. The motive for the crime, as stated by himself, was the same as in the case of Hadfield, who was acquitted on the ground of insanity. The whole circumstances of the case take it out of the category of ordinary criminality, and show that the crime was committed by a man of morbid mind, and was in part the direct result of the morbidity of mind from which he suffered. Why was he not then found insane? Was the verdict due to the terms in which the issue was left to the jury? The jury were told that if the prisoner knew what he was doing when he shot Skinner, and that he was doing wrong, they must return a verdict of guilty; and the evidence of the medical expert was, "I think he knew he was shooting him." It does not appear that any evidence was given that the prisoner knew that he was doing wrong, but this is, of course, presumed until the contrary is proved, and there was no evidence at all to the contrary. It appears therefore on the face of it that this man of morbid mind was convicted of a crime that was due to the morbid state of his mind, and that the conviction was due to the terms in which the issue was left to the jury. There now arises the further question: Ought he to have been convicted? Was the disorder of his mind, which unquestionably did exist, such as would, and did, render him irresponsible for the act? The expert evidence was that he was suffering from brain disease, which would have the effect of weakening his mental powers, and that he had shown early symptoms of insanity. But on the other hand, when Dr. Whitcombe was asked "Did you find him a sane or an insane man?" he was obliged to reply "A sane man." And after this answer the jury had surely no alternative but to convict him, whatever the precise terms in which the issue might have been left to them. This point is very important, for it has been alleged that insane prisoners are sometimes convicted because the expert evidence is that they know what they are doing and know right from wrong, and that the expert is not given the opportunity of stating whether the prisoner is insane. If indeed the issue had been left to the jury in terms that have been suggested, viz.:—Was the prisoner of unsound mind: and was the act due to his unsoundness of mind? it is possible that the jury might have answered in the affirmative, and it seems certain that in so answering they would have answered rightly. But it is evident that behind the questions that are left to the jury, in whatever terms they are left, is the vital question: Ought he then to be punished for what he did? This is the real question that the jury have to settle, be the terms of the questions left to them what they may, and this question has, in the last resort, to be settled by ascribing the motive by which the act was prompted. In the present instance the motive appears to have been two-fold: (1) The desire for vengeance. (2) The desire to practically commit suicide by being hanged for murder. These motives acted upon a mind that was disordered (*a*) by hereditary instability and (*b*) by cerebral disease. It is evident that the verdict of the jury will be determined by their judgment as to whether the crime was due mainly to the desire for vengeance, or whether it was due to a desire to be killed dominating a mind hereditarily predisposed to suicide, and further disordered by injury and disease of the brain. In short, they had to apportion the relative amounts of sanity and insanity that entered into an action that was partially sane and partially insane. Of the motive of desire for self-destruction they were not aware until after the verdict was given. So to apportion the motives of any human being is a task of the utmost difficulty. The jury, after hearing the evidence, determined, with considerable hesitation, that the sane element preponderated, and they convicted the prisoner. It is possible that with the additional evidence of motive supplied by the prisoner's speech after conviction, they might have come to a different conclusion. It is possible that, with this additional evidence, one or more experts examining the prisoner after conviction, may determine that upon the whole insanity may have preponderated over sanity in actuating the crime and may recommend a

reprieve. But if this should happen it by no means follows that the jury ought, upon the evidence before them, to have come to a different conclusion, or that the prisoner was wrongfully convicted owing to the terms in which the issue was left to the jury.

The prisoner was subsequently reprieved and committed to Broadmoor.

*Reg. v. Waterhouse.*

The prisoner was charged with wounding Thomas Hall, with intent, &c. Prosecutor sold prisoner a watch, to be paid for in instalments. Payment being due, prisoner wrote to prosecutor appointing to meet him and they met accordingly at a Railway Station. Thence they went to an inn, which being crowded, they adjourned to prisoner's lodgings. They were on good terms, and prosecutor wrote out a receipt, when suddenly prisoner seized him by the forehead, forced him back in his chair and cut his throat. Prisoner then ran away. Insanity was pleaded.

Prisoner's mother deposed that when a child he was kicked in the head by a horse, and had always suffered from headache and dizziness, "and had shown other signs of a diseased mind." Also that her uncle and his son had been confined in a lunatic asylum. It appears that among the "other signs" above mentioned was that of epilepsy, for another witness deposed to prisoner biting his tongue till it bled.

Dr. Chadwick and Dr. Brown, physicians to the Leeds Infirmary, said the symptoms described were those of *petit mal*, the effects of which they described. Prisoner was found guilty but insane.—West Riding Assizes, March 11th.—*Yorkshire Daily Post*, March 12th.

The plea of irresponsibility from *petit mal* is very rarely successful. The result of the above case points to the direction of an enlightened judge, whose name is unfortunately not given in the report.

*Reg. v. Baxter.—"The Sefton Murder."*

Prisoner, a married woman, was indicted for the murder, on February 17th, of her two children. Prisoner was seen on the afternoon in question running about her garden trying to cut her throat with a razor and crying out "It won't cut." Her two children were found in the house with their throats cut. When arrested she "appeared to be out of her mind." She was not in a fit condition to be charged until next day. In answer to the charge she said "I don't remember it. I must have been mad."

Dr. Fitzpatrick saw the prisoner shortly after the crime. When he spoke to her she said "It won't cut; it won't cut." She had nothing in her hand then. She did not recognise witness. He had come to the conclusion that the prisoner was insane at the time the act was committed.

Dr. Wiglesworth said he examined the prisoner on the 3rd March. She was then insane, and he was of opinion that her insanity was such at the time of the murder that it rendered her irresponsible for her actions.

Dr. Beamish, Medical Officer of Walton Prison, had come to the conclusion that the prisoner's conduct was attributable to a deranged state of mind, that she committed the deeds referred to in a paroxysm, and she probably did not know what she was doing.

The Judge said it was quite clear from the evidence that the prisoner did not know what she was doing at the time, and

The jury found the prisoner guilty, but insane.—Liverpool Assizes, March 23rd (Mr. Justice Kennedy).—*Liverpool Daily Post*, March 24th.

When, as in this case, the Judge is satisfied, upon reading the depositions, of the insanity of the prisoner, he allows the utmost latitude to the medical witnesses, *McNaghten* notwithstanding.

*Reg. v. Holland.*

Joseph Holland, 27, coachman, was indicted for the wilful murder of Annie Chambers. Deceased took some food to the prisoner, who lodged in her house. Prisoner thereupon struck her on the head with a hammer and cut her throat.—Dr. Bastian, who had examined the prisoner on behalf of the Crown, was called for the defence, and stated that he believed that the prisoner committed the act under the influence of an acute attack of homicidal mania. He thought that the prisoner did not know the nature and quality of the act at the time he committed it.—Dr. Pitcairn gave evidence to the same effect.—The jury found the prisoner guilty, but insane.—Central Criminal Court, February 26th (Mr. Justice Wills).—*Times*, February 27th.

The evidence of the medical experts who had examined the prisoner on the part of the Crown was placed at the disposal of the defence. They were allowed to answer the same questions in the same terms that were put to the jury.

*Reg. v. Pett.*

George Thomas Pett, 54, retired tradesman, was indicted for the murder of his daughter Lilian, at Brighton. Prisoner took his two children for a walk, took them to the end of the "Banjo" groyne, pushed them into the sea, and jumped in himself. Prisoner and one child were rescued, the other was drowned. Prisoner had left a letter on the groyne addressed to his wife and stating, "I have destroyed the last will, so the former one leaves you all. Life is unendurable; you will find me near the 'Banjo' groyne. Your sorrowful husband." The prisoner made a confession describing what he had done and added that he was very glad the eldest child was dead.—A number of medical and other witnesses were called, who proved that the prisoner was a kind father and husband and a man of means. He had had influenza and since then had suffered from melancholia with suicidal tendencies.—Guilty, but insane.—Lewes Assizes, February (Mr. Justice Wills).—*Times*, February 15th.

It was proved that the prisoner knew the nature and quality of his act, but as usual in such cases in which the evidence of insanity is strong, the prisoner was nevertheless found insane.

*Carter v. Dove and others.*

Plaintiff applied for probate of a will made on July 1st, 1895, by Mr. Charles Bathurst Woodman, who died on September 28th, 1895. Defendants opposed probate on the usual grounds. The testator was an old man of 87, and had been certified as a lunatic and taken charge of by the plaintiff in his (testator's) own house since September 24th, 1894. It was proved that during the year preceding his death the testator had been filthy in his habits and surroundings; that he was disgustingly indecent; that he was violent; and that he had delusions of poverty.—Dr. Savage testified that he examined the testator on January 12th, 1895, and found him suffering from incurable dementia. He was, in Dr. Savage's opinion, quite incapable of transacting business or of making a will.—Dr. Wallis, Commissioner in Lunacy, examined testator on July 4th and considered that he was not fit at that time to make a will.—Dr. Rayner deposed that the testator suffered from senile dementia.—Various other witnesses related insane conduct on the part of the testator. On the other hand it was shown that the testator had cherished for many years, and long before he became insane, a feeling of enmity and bitterness against the relatives whom he excluded from benefit under his will and who now contested its validity.—The jury found for the will.—Birmingham Assizes (Mr. Justice Mathew).—*Birmingham Daily Gazette*, March 20th, 21st, and 23rd.

An ordinary instance of the difficulty of upsetting a will on the ground of insanity.

(From the official shorthand notes.)

CENTRAL CRIMINAL COURT, MAY 20-22, 1896.

Reg. v. Dyer.

Amelia Elizabeth Dyer, 57, nurse, was indicted before Mr. Justice Hawkins for the wilful murder of Doris Marmon. The prisoner was a baby-farmer on an extensive scale, and the facts were not disputed, she having confessed to many infanticides. The defence relied on her present mental condition, and on the fact that she had previously been under asylum treatment.

For the defence, Dr. Fred. Logan, Bristol, had examined the prisoner in December, 1893. She was very threatening, and offered him personal violence. Said she heard voices telling her to destroy herself, and that the birds said "Do it." Her daughter said she had attempted suicide. On this he certified her insane.

Cross-examined: Had not seen prisoner before or since that occasion. Heard she was shortly after discharged from the asylum. Saw no other symptoms besides those mentioned. Did not use the ophthalmoscope. Saw no evidence of any suicidal attempt. His examination lasted a quarter of an hour, perhaps longer. Considered her conduct was due to disease of the brain and drink. Distress or fear might induce this form of insanity.

Dr. Lacy Firth, Clifton, treated prisoner in May, 1894, while house surgeon at Bristol General Hospital. She was there thirteen days for attempted suicide by drowning. Was very low-spirited, refused food, and said she had something on her mind. She would not say what it was. Did not consider her insane.

Cross-examined: In consequence of inquiries at the hospital he interrogated prisoner as to the loss of a child placed in her charge. She admitted partial knowledge of the affair.

Dr. William Eden, Hambrook, had examined prisoner at Fishponds, Bristol, in December, 1894, on relieving officer's order. She was excited and "bellicose," threatened to pitch him out of the window, said God had forsaken her and the world was against her. Daughter said she had threatened her with a knife and had attempted suicide. Examined her for about ten minutes and signed a lunacy certificate.

Cross-examined: She remained one month in Gloucester Asylum. Saw no traces of attempted suicide about her. She was not depressed; quite the opposite. Daughter said she had been in an asylum.

Dr. Forbes Winslow had examined prisoner for the defence on two occasions in Holloway Prison. Had formed no opinion as to her condition before he saw her. Considered her of unsound mind, suffering from melancholia, with delusions and hallucinations. There was no excitement nor any attempt to feign insanity. Concluded she was not shamming. She volunteered the statement that she often got depressed mentally, that voices spoke to her every night and told her to take her own life, and that she had made several attempts to do it, but had been prevented. Said she was frequently visited by the spirits of her mother and son. Her memory was good for what happened years ago, but bad for recent events. That, with the other symptoms, would show organic disease of the brain. She had no recollection of the crime, and said she became mystified when she tried to recollect it. Could not remember the names of any of the children, had never missed them, and could not tell when she had seen them last. She alluded to terrifying visions, but would not specify them as they were "too horrible." When pressed, said she was accustomed to feel as if she were handing her mother's bones out of her coffin and that rats were crawling all over her. This recurrent form of insanity was the most formidable of its kind.

Cross-examined: Depression in a sane person charged with murder was not unnatural. Prisoner did not mention the voices and visions until he had asked

her if she heard or saw them. Did not expect to find excitement as in melancholia and monomania. There are no outward signs of insanity. People in trouble often conjured up visions and dreams. Should not be surprised either way if they had them or not.

For the prosecution, Dr. James Scott, medical officer of Holloway and Newgate prisons, had had prisoner under his observation since her committal to Holloway on 2nd May. Had seen and conversed with her daily, and had received reports about her from the attendants. Did not consider her insane. She had stated that she was suicidal, and that her memory of recent events was a blank. Had tested her memory and found that it was good as to previous events. She stated she had been an asylum attendant.

Cross-examined : It was possible for a homicidal maniac to be free from excitement. Considered her to be simulating insanity. Was present at her interviews with Dr. Winslow, and considered it would be unsafe to deduce insanity as a result of them. Had never seen any suicidal tendency in her, nor had she behaved in an insane manner.

Dr. G. H. Savage had examined the prisoner at the request of the Treasury. He came to the conclusion she was not mentally unsound. Although she said she did not recollect the crimes, he found all other facts of her life were clear in her memory. A homicidal maniac might hear voices, but they would incite to murder, not to suicide. The circumstances of the children's murders did not in his opinion suggest any homicidal mania.

Cross-examined : Had read of the case before examining prisoner, but was unbiased in his report as to her sanity. Impulsive insanity was a very formidable variety. The hearing of voices was a symptom of homicidal mania; the voices might command or indicate. Homicidal mania was not usually periodical. Homicidal persons commonly attempted suicide, and did not wish to live. Confession of guilt was not characteristic of it. Understood there was no family history of insanity. Was aware of Dr. Logan's certificate of 1893 and of the symptoms he described, but had no right to deny or question facts relating to years gone by.

Prisoner was found guilty and sentenced to death, being executed June 10th.

(*From the official shorthand notes.*)

CENTRAL CRIMINAL COURT, JUNE 25, 1896.

*Reg. v. Allison.*

James Robert Allison, 28, publican, was indicted before Mr. Justice Hawkins for the wilful murder of his wife by shooting. The following medical evidence was produced by the Treasury :—

Dr. H. Charlton Bastian had examined the prisoner, and could find no evidence of insanity at present.

Cross-examined : Homicidal mania was abrupt, sudden, and without apparent motive. A homicidal maniac would not know the nature and quality of his act. It was quite possible the prisoner had an attack of homicidal mania on the occasion of the crime, in which he would be bereft of reason and the power of control.

Re-examined : Considered it possible from the facts of the prisoner's neurotic family history \* and from his known intemperate habits, also as prisoner was stated to have been anxious as to his wife's health, also as there was no evidence of an altercation prior to the act, his habits and family history would render him liable to sudden gusts of passion—very near to irresponsibility. A sudden thought would impel him to do the act, and for some time the notion might linger in his mind, which would account for his asking "Have I finished the job? Is she dead?"

Dr. James Scott, Medical Officer of Holloway and Newgate Prisons, had had

\* Two brothers were stated to have died by suicide.

the prisoner under observation ever since his arrest. Had been unable to detect any trace of insanity in him. He probably had an exaggerated idea of jealousy as to his wife, which might have been a delusion.

Cross-examined: His examination was of course confined to the prisoner's condition subsequent to the act. Prisoner had not been so anxious as was usual in a person in his position. Agreed with Dr. Bastian that it was possible he had a sudden attack of homicidal mania at the time.

Prisoner was sentenced to death. The Secretary of State subsequently ordered his examination by Dr. Savage and Mr. Brayne, of Broadmoor, and in the result the sentence was commuted to penal servitude for life.

## PARLIAMENTARY INTELLIGENCE.

### HOUSE OF COMMONS.

#### *Treatment of the Insane in Ireland.*

Mr. M'Cartan asked the Irish Secretary whether his attention had been called to the proceedings at an inquest held in Belfast Workhouse into the death of an inmate named Eliza Jane Hanna, in which it appeared that the deceased had been a patient in Belfast Asylum; would he state when and under what statute she was transferred to Belfast Workhouse; whether she belonged to the Belfast Union, and, if not, under what authority did the guardians of the poor there admit her and keep her confined in Belfast Workhouse at the expense of the ratepayers of Belfast; whether Belfast Workhouse had ever been certified by the Inspectors of Lunatics or the Board of Control as a suitable and proper place for the reception of the insane; whether he was aware that the doctor of the workhouse swore at the inquiry that the patient was transferred without any consultation between the doctors of the two institutions, and that the recreation yard at the workhouse was so small and usually so noisy that it had been described by one of the inspectors as a pandemonium; and whether he would have full inquiry made into the matter.—Mr. G. Balfour: My attention has been drawn by the question to the proceedings at the inquest referred to in the first paragraph. The Clerk of the Union states that the woman was received into the workhouse in December, 1893, as a presumably destitute person in exchange for another person sent from the workhouse to the lunatic asylum. The woman did not belong to the Belfast Union. The reply to the fourth paragraph is in the negative. No such certificate is required. As to the fifth paragraph, no consultation is held regarding the condition of patients between the medical officers of the two institutions. I understand the medical officer of the workhouse stated at the inquest that he had heard that the Inspector of Lunatics had described the recreation yard in the manner mentioned, but I have not ascertained from the Inspector of Lunatics whether he has been correctly reported.

#### *Treatment of Imbeciles in Ireland.*

Mr. Engledew asked the Chief Secretary to the Lord-Lieutenant of Ireland whether the Government had decided what steps they intend taking with regard to the recommendation made by the Inspectors of Lunatics and Commissioners of Control in the report dated Lunacy Offices, Dublin Castle, January 8th, 1896, as to the great want, existing in Ireland, of a national institution for the training and education of idiot and imbecile children, in order that these classes might be removed from what the report of the Commission describes as the neglect and poverty of their own homes and from the contaminating influence of association with the adult inmates of asylums and workhouses.—Mr. Gerald Balfour replied that he was aware of the views expressed by the Inspectors of lunatic asylums on the subject of providing State aid towards the establishment of an institution for the training and education of idiots and imbeciles in Ireland. The matter was one which had his sympathetic consideration, and he hoped to be able at some time to introduce legislation dealing with it.

*Inquiry into the Irish Workhouse System.*

Mr. M'Cartan asked the Irish Secretary whether he would state if it was his intention to appoint a departmental or other Committee to inquire into the Irish workhouse system; and, if so, whether this inquiry would extend to the treatment of pauper lunatics in workhouses, and their admission to workhouses from properly equipped asylums; and whether he would give the names of the gentlemen who were to constitute this Committee.—Mr. G. Balfour: In the event of the passage of the Poor Relief (Ireland) Bill, inquiry would have to be held into the subject of the best means of grouping workhouses with reference to amalgamation, but I do not think it would be necessary to appoint a departmental Committee to inquire into the whole system of workhouse administration or to extend it to the treatment of the insane in workhouses or asylums.—Mr. A. O'Connor asked whether the inquiry would include classification.—Mr. G. Balfour said he did not think it would touch that point. He thought they had sufficient information in regard to it already.—Mr. Swift MacNeill: Will the inquiry cover the question of the consolidation of workhouses?—Mr. G. Balfour: My idea would be that the Committee or Commission should inquire as to what unions it would be best to group together.

*Tradesmen as Attendants in Irish Lunatic Asylums.*

In reply to Mr. Engledeew, Mr. G. Balfour said that the Inspectors had from time to time drawn the attention of the Boards of Governors to the great importance of adding tradesmen attendants to the asylum staffs with a view to increasing the employment of the patients. At present, out of 722 attendants employed in the various asylums of Ireland 176 were tradesmen.

*The Dismissed Asylum Attendants.*

Mr. Field asked the Chief Secretary whether he was aware that the Board of Governors of Richmond Asylum on the 6th May dismissed James Duffy and Frederick Brunton because they refused to give up membership of a trades' union which had been established in connection with their employment, and registered on the 20th April; and whether he will have an inquiry instituted into this matter.—The Chief Secretary: The fact is as stated in the first paragraph. The appointment and dismissal of asylum attendants devolve by law upon the Board of Governors alone, and I see no sufficient reason for instituting an inquiry into the matter as suggested.

*The Government Grant for Lunatics.*

Mr. Ashton asked the President of the Local Government Board whether he had caused inquiry to be made into the question of extending the 4s. grant per week for lunatics, now given to lunatic asylums, to workhouses; and, if so, whether he was prepared to recommend that that grant should be paid for lunatics in workhouses who had been treated in asylums and discharged to workhouses as incurable.—Mr. Chaplin: I have received a large number of communications on this subject, and have given careful consideration to it. Nothing, however, could be done in the matter without an alteration in the law; and at present I am not prepared to propose legislation with regard to it.

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**PENSIONS AND GRATUITIES.***Poor Law Officers' Superannuation Act.*

Dr. Murray Lindsay draws our attention to this Act, which, he remarks, should be useful to us and may help forward our cause, for it contains some principles we are advocating and should like to see applied to the asylum service, viz.:—

- 1.—Compulsory superannuation. Sec. 2.
- 2.—Compulsory retirement. Sec. 2, paragraph 3.
- 3.—Transferred service to reckon towards pension. Sec. 4.

4.—Power to add a number of years not exceeding ten in certain cases for peculiar professional qualifications or special circumstances. Sec. 5.

5.—Power to grant gratuities in certain cases. Sec. 8.

6.—Power of appeal to Local Government Board to decide questions as to the right to or the amount of superannuation allowance. Sec. 18.

7.—“Emoluments,” including the money value of any apartments, rations, or other allowances, to be reckoned in calculating pension. This is compulsory as part of the superannuation and not permissive or discretionary.

The scale is one-sixtieth for every year of service, the maximum of two-thirds not being attainable till after forty years’ service; and there is an annual contribution to the Pension Fund of 2,  $2\frac{1}{2}$ , and 3 per cent. according to the length of service. Sec. 18.

From the asylum point of view of course this could not be considered liberal or satisfactory, as asylum officials devote their *whole time* to the service; but from the Poor Law Officers’ point of view, it may be considered fairly good as ensuring a *certainty*, for the Act applies to Poor Law Officers who are not required to and who do not devote their whole time to Poor Law service (e.g. Medical Officers), and whose work is much less arduous and risky than the Asylum service.

#### NOTICES BY THE REGISTRAR

#### EXAMINATION FOR THE CERTIFICATE IN PSYCHOLOGICAL MEDICINE.

The following candidates were successful at the examination held on the 16th July, 1896:—

##### ENGLAND.

*Examined at Bethlem Hospital, London.*—Edward John Cross, Anthony Alexander Martin.

##### SCOTLAND.

*Examined at the Royal Asylum, Edinburgh.*—John Clarke Nixon, William Hector Mackenzie, Sreenagula Mallannah, Ian Lamont MacInnes, Harold Sherman Ballantyne.

*Examined at the Royal Asylum, Aberdeen.*—William Ainslie, Robert H. Clarke, William Deane Manson Donald, William Marshall Philip, Thomas Snowball, George Felix Thompson.

The following were the written questions:—

1.—Give the predisposing causes, symptoms, prognosis and treatment of Puerperal Mania. 2.—Describe briefly Primary Dementia, giving its course and prognosis. How does it resemble and differ from Melancholia with Stupor, and from Secondary Dementia? 3.—In what cases are hallucinations of sight and hearing most frequently met with? To what extent would they influence your treatment and prognosis of a case, and what precautions would you deem necessary in such cases? 4.—An act of outrage has been committed by a man known to have suffered from Epileptic “Fits”: what circumstances would go to prove that the perpetrator was an irresponsible agent? 5.—Describe a case of Acute Delirious Mania, and state how you would distinguish it from a case of delirium tremens. 6.—State your views as to the causes of change in pupils observed in General Paralysis of the Insane.

The next examination will be held in December, 1896. Due notice of the date will be given in the *Lancet* and the *British Medical Journal*.

#### WINNER OF THE GASKELL PRIZE

William Richard Dawson, M.D.

The following were the written questions:—

1.—Give in detail the pathological changes found microscopically in the Cerebral Convulsions and Meninges in General Paralysis of the Insane. 2.—What are the mental symptoms which occur in Myxoedema? How do you explain them? What is the cerebral pathology of this disease? 3.—Define

"Judgment." What is the difference between Judgment and Reasoning? What is the relation to Judgment of (a) Hesitation and (b) Doubt? 4.—To what morbid changes are the cells of the fifth layer of the Cortex liable, and in what form of insanity are these cells specially affected? 5.—Is there a distinct form of insanity which may properly be termed homicidal mania? If so, describe its characters and show how it differs from other forms of insanity accompanied by homicidal propensities. 6.—To what extent may the advent of puberty be regarded as a cause of insanity? What do you consider to be the mode of its operation?

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#### WINNER OF THE BRONZE MEDAL.

John Turner, M.B., C.M.

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#### THE CERTIFICATE IN NURSING.

The next examination for the Certificate of Proficiency in Nursing will be held on Monday, the 2nd day of November, 1896, and candidates are earnestly requested to send in their schedules, duly filled up, to the Registrar of the Association, not later than Monday, the 5th day of October, 1896, as that will be the last day upon which, under the rules, applications for examination can be received. For further particulars respecting the various examinations of the Association apply to the Registrar, Dr. Spence, Burntwood Asylum, near Lichfield.

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#### ERRATUM.

The name of John McCool was erroneously included in the list of attendants who had passed the July examination.

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#### OBITUARY.

##### DR. COLIN MACIVER CAMPBELL.

We deeply regret to have to record the death of Dr. MacIver Campbell, lately Medical Superintendent of the Perth District Asylum. His resignation in 1893, when the state of his health rendered it impossible for him to continue to discharge duties for long undertaken under the gravest difficulties, caused widespread regret and was a serious loss to the Institution, the interests of which he had cared for so well. His father, the Very Rev. Principal Campbell, of the University of Aberdeen, was a man of marked ability, and his sons might have aspired to eminence in any walk of life. None, however, reached middle life, and Dr. Campbell was the last survivor of six brothers, deeply mourned by all who had the advantage of his friendship during his too short career of usefulness.

He was educated at the University of Aberdeen and Vienna, and served as Assistant Medical Officer in the York Retreat and the Durham County Asylum besides serving in the West Riding Asylum as Clinical Clerk. When Dr. Campbell entered on his duties at Murthly in 1883, he brought ability, skill and training to carry on the work in which he was so deeply interested, and soon endeared himself in all the relations of life to those with whom he was brought into contact. His generous kindly nature had been shattered by a long and terrible illness, and for many months before death relieved him of the burden of life, his bright and sunny disposition was almost overwhelmed by disasters.

Dr. Campbell did not write much. His energies were rather devoted to the immediate considerations of asylum management. He placed on record certain

observations relative to the influence of Typhoid Fever on insane patients; and was one of those who produced the *Handbook for Attendants* in 1885. A noteworthy feature of his rule at Murthly was the institution of a school for the patients, managed by the neighbouring schoolmaster in such a way as to really interest those for whom the benefit was intended. His able administration of the Perth District Asylum was duly recognised by the District Lunacy Board entering on their minutes their appreciation of his services and the regret with which they had received the intimation of his death, which occurred at Edinburgh on the 20th June, 1896.

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#### DR. FRANÇOIS SEMAL.

Dr. François Semal, the celebrated Medical Superintendent of the State Hospital for Insane Women at Mons, who died the 16th of May, 1896, was born at Brussels the 20th December, 1835. He took his diploma in 1860 and entered the Belgian Army. Soon afterwards he gave proof of his great mental activity, and was presented at the Exhibition of Hygiene of London with a diploma of honour for his study of epidemic diseases. In consequence of his careful treatment of patients suffering from cholera at Antwerp, he received Stars of the Orders of Belgium, Prussia and Holland.

In 1869, Dr. Semal left the army and was at once appointed Medical Superintendent at the Asylum of Mons, where he remained for twenty-seven years. In the same year was created the "Société de Médecine Mentale," of which he was an original member, and he took a great part in the discussions of that learned body. Its Bulletins contain many important original papers by Dr. Semal, while others were rewarded by the Royal Academy of Medicine of Belgium and the "Association Medico-psychologique de Paris." In 1873, Dr. Semal took an active part in the reform of the Belgian Lunacy Law.

The rebuilding and reorganisation of the asylum at Mons, was presided over by Dr. Semal, and the admirable character of this institution deserves the recognition of foreign alienists.

We understand that a full account of his life and work is shortly to appear, and express the regret of this Association at the loss of so distinguished an honorary member.

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#### NOTICES OF MEETINGS.

*South-Western Division.*—The Autumn Meeting of this Division will be held at Fisherton House, Salisbury on the afternoon of Tuesday, October 20th. A discussion will be opened on "Constipation in the Insane."

*Scottish Division.*—The next Meeting will be held in Edinburgh on Thursday, 12th November, 1896.

The next General Meeting will be held on Thursday, November 19th, at the Rooms of the Association, 11, Chandos Street, Cavendish Square. W.

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#### APPOINTMENTS.

*Aberdeen University Court.*—MR. GEORGE FREDERICK STOUT, Fellow of St. John's College, Cambridge, and Editor of *Mind*, has been appointed the Anderson Lecturer on Comparative Psychology in the University of Aberdeen on the terms recently mentioned in the columns of the *Lancet*.

*Grahamstown Asylum, S. Africa.*—DR. CHARLES G. CASSIDY has been appointed Assistant Medical Officer, vice Dr. Walter Adam, resigned.

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“ Nos vero intellectum longius n rebus non abstrahimus quam ut rerum imagines et  
radii (ut in sensu fit) coire possint.”

FRANCIS BACON, *Proleg. Instaurat. Mag.*

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VOL. XLII.

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J. AND A. CHURCHILL,  
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MDCCCXCVI.

“ IN adopting our title of the *Journal of Mental Science*, published by authority of the Medico-Psychological Association, we profess that we cultivate in our pages mental science of a particular kind, namely, such mental science as appertains to medical men who are engaged in the treatment of the insane. But it has been objected that the term mental science is inapplicable, and that the terms, mental physiology, or mental pathology, or psychology, or psychiatry (a term much affected by our German brethren), would have been more correct and appropriate; and that, moreover, we do not deal in mental science, which is properly the sphere of the aspiring metaphysical intellect. If mental science is strictly synonymous with metaphysics, these objections are certainly valid, for although we do not eschew metaphysical discussion, the aim of this Journal is certainly bent upon more attainable objects than the pursuit of those recondite inquiries which have occupied the most ambitious intellects from the time of Plato to the present, with so much labour and so little result. But while we admit that metaphysics may be called one department of mental science, we maintain that mental physiology and mental pathology are also mental science under a different aspect. While metaphysics may be called speculative mental science, mental physiology and pathology, with their vast range of inquiry into insanity, education, crime, and all things which tend to preserve mental health, or to produce mental disease, are not less questions of mental science in its practical, that is, in its sociological point of view. If it were not unjust to high mathematics to compare it in any way with abstruse metaphysics, it would illustrate our meaning to say that our practical mental science would fairly bear the same relation to the mental science of the metaphysicians as applied mathematics bears to the pure science. In both instances the aim of the pure science is the attainment of abstract truth: its utility, however, frequently going no further than to serve as a gymnasium for the intellect. In both instances the mixed science aims at, and, to a certain extent, attains immediate practical results of the greatest utility to the welfare of mankind; we therefore maintain that our Journal is not inaptly called the *Journal of Mental Science*, although the science may only attempt to deal with sociological and medical inquiries, relating either to the preservation of the health of the mind or to the amelioration or cure of its diseases; and although not soaring to the height of abstruse metaphysics, we only aim at such metaphysical knowledge as may be available to our purposes, as the mechanism uses the formularies of mathematics. This is our view of the kind of mental science which physicians engaged in the grave responsibility of caring for the mental health of their fellow men, may, in all modesty, pretend to cultivate; and while we cannot doubt that all additions to our certain knowledge in the speculative department of the science will be great gain, the necessities of duty and of danger must ever compel us to pursue that knowledge which is to be obtained in the practical departments of science, with the earnestness of real workmen. The captain of a ship would be none the worse for being well acquainted with the higher branches of astronomical science, but it is the practical part of that science as it is applicable to navigation which he is compelled to study.”—*Sir J. C. Bucknill, M.D., F.R.S.*

LIST OF PRESIDENTS  
OF THE  
MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT  
BRITAIN AND IRELAND.

1854. A. J. Sutherland, M.D., St. Luke's Hospital, London.  
1855. J. Thurnam, M.D., Wilts County Asylum.  
1856. J. Hitchman, M.D., Derby County Asylum.  
1857. Forbes Winslow, M.D., Sussex House, Hammersmith.  
1858. John Conolly, M.D., County Asylum, Hanwell.  
1859. Sir Charles Hastings, D.C.L.  
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1861. Joseph Lalor, M.D., Richmond Asylum, Dublin.  
1862. John Kirkman, M.D., Suffolk County Asylum.  
1863. David Skae, M.D., Royal Edinburgh Asylum.  
1864. Henry Munro, M.D., Brook House, Clapton.  
1865. Wm. Wood, M.D., Kensington House.  
1866. W. A. F. Browne, M.D., Commissioner in Lunacy for Scotland.  
1867. C. A. Lockhart Robertson, M.D., Haywards Heath Asylum.  
1868. W. H. O. Sankey, M.D., Sandywell Park, Cheltenham.  
1869. T. Laycock, M.D., Edinburgh.  
1870. Robert Boyd, M.D., County Asylum, Wells.  
1871. Henry Maudsley, M.D., The Lawn, Hanwell.  
1872. Sir James Coxe, M.D., Commissioner in Lunacy for Scotland.  
1873. Harrington Tuke, M.D., Manor House, Chiswick.  
1874. T. L. Rogers, M.D., County Asylum, Rainhill.  
1875. J. F. Duncan, M.D., Dublin.  
1876. W. H. Parsey, M.D., Warwick County Asylum.  
1877. G. Fielding Blandford, M.D., London.  
1878. J. Crichton-Browne, M.D., Lord Chancellor's Visitor.  
1879. J. A. Lush, M.D., Fisherton House, Salisbury.  
1880. G. W. Mould, M.R.C.S., Royal Asylum, Cheadle.  
1881. D. Hack Tuke, M.D., London.  
1882. W. T. Gairdner, M.D., Glasgow.  
1883. W. Orange, M.D., State Criminal Lunatic Asylum, Broadmoor.  
1884. Henry Rayner, M.D., County Asylum, Hanwell.  
1885. J. A. Eames, M.D., District Asylum, Cork.  
1886. Geo. H. Savage, M.D., Bethlem Royal Hospital.  
1887. Fred. Needham, M.D., Barnwood House, Gloucester.  
1888. T. S. Clouston, M.D., Royal Edinburgh Asylum.  
1889. H. Hayes Newington, M.R.C.P., Ticehurst, Sussex.  
1890. David Yellowlees, M.D., Gartnavel Asylum, Glasgow.  
1891. E. B. Whitcombe, M.R.C.S., City Asylum, Birmingham  
1892. Robert Baker, M.D., The Retreat, York.  
1893. J. Murray Lindsay, M.D., County Asylum, Derby.  
1894. Conolly Norman, F.R.C.P.I., Richmond Asylum, Dublin.  
1895. David Nicolson, M.D., New Law Courts, Strand, W.C.

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OF GREAT BRITAIN AND IRELAND.

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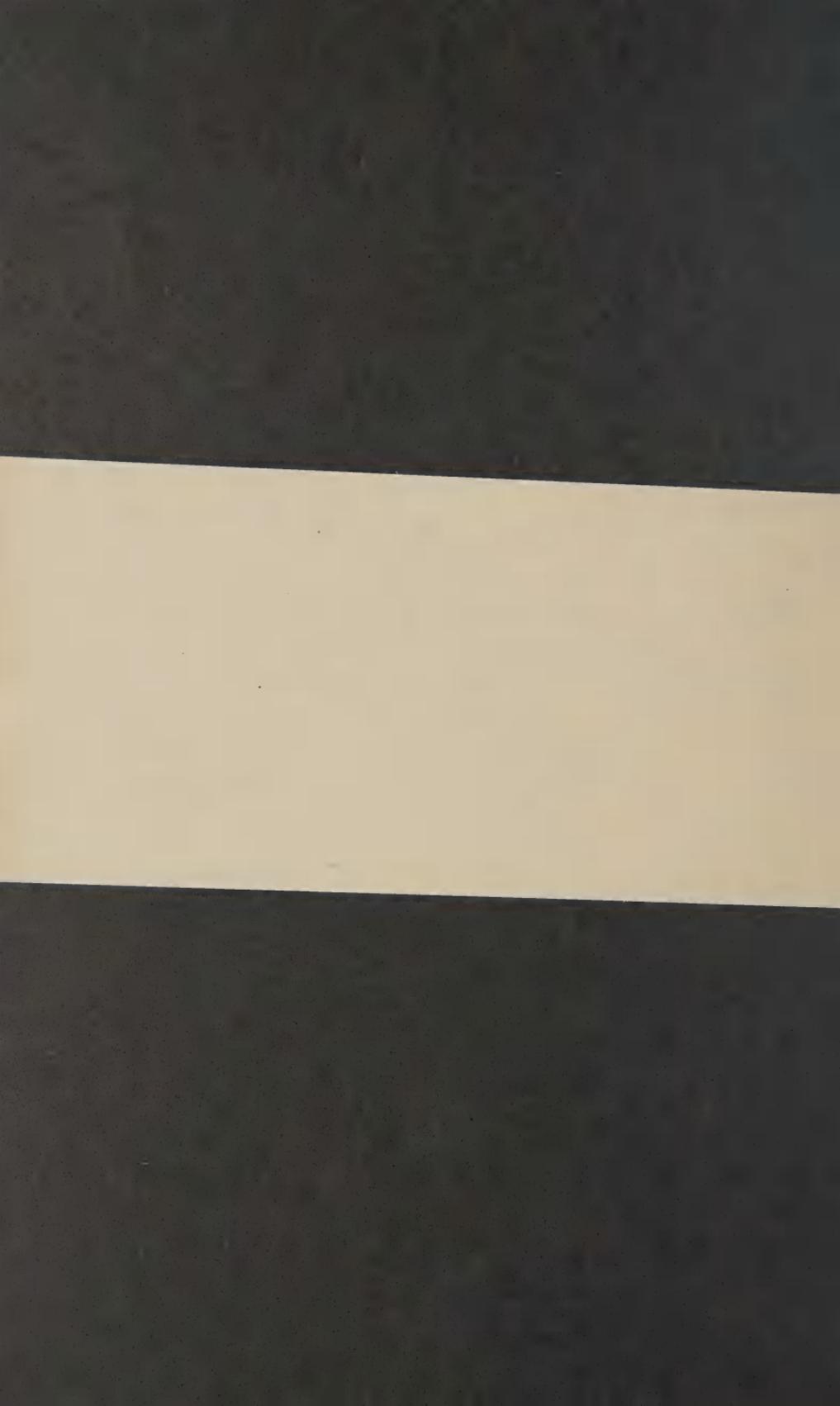
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With power to add to their number.

LIST OF CHAIRMEN  
OF THE  
ANNUAL MEETINGS OF THE ASSOCIATION FROM ITS  
COMMENCEMENT.

- 1841. Dr. Blake, Nottingham.
- 1842. Dr. de Vitrè, Lancaster.
- 1843. Dr. Conolly, Hanwell.
- 1844. Dr. Thurnam, York Retreat.
- 1847. Dr. Wintle, Warneford House, Oxford.
- 1851. Dr. Conolly, Hanwell.
- 1852. Dr. Wintle, Warneford House.



*Alphabetical List of Members of the Association, with the year in which they joined. The Asterisk means Members who joined between 1841 and 1855.*

1891. Adair, Thomas Stewart, M.B., C.M. Edin., Assistant Medical Officer and Pathologist, Wadsley Asylum, near Sheffield.

1874. Adam, James, M.D. St. And., Private Asylum, West Malling, Kent.

1895. Adam, Walter, M.D. Edin., Graham's Town Asylum, South Africa.

1868. Adams, Josiah O., M.D. Durh., F.R.C.S. Eng., Brooke House, Upper Clapton, London.

1857. Adams, Richard, L.R.C.P. Edin., M.R.C.S. Eng., Medical Superintendent, County Asylum, Bodmin, Cornwall.

1880. Agar, S. H., L.R.C.P.I., Glendossil, Henley-in-Arden.

1886. Agar, S., Hollingsworth, jun., B.A. Cantab., M.R.C.S., Glendossil, Henley-in-Arden.

1890. Alexander, Robert Reid, M.D. Aber., Medical Superintendent, Hanwell Lunatic Asylum.

1862. Aldridge, Chas., M.D. Aberd., L.R.C.P., Plympton House, Plympton, Devon.

1893. Allan, Thomas Sprot, L.R.C.P. Edin., and L.M., L.R.C.S. Edin., &c., Queen's Road, Coventry.

1896. Allbut, T. Clifford, M.D., F.R.C.P., Regius Professor of Physic, Univ. Camb., St. Radegunds, Cambridge. (*Hon. Member.*)

1882. Alliott, A. J., M.D., Rosendal, Sevenoaks.

1885. Amsden, G., M.B., Medical Supt., County Asylum, Brentwood, Essex.

1888. Anderson, W. A., M.B., Bucks County Asylum, Stone, Aylesbury.

1894. Andriezen, W. Lloyd, M.D. Lond., 25, Montague Place, London, W.

1894. Angus, Charles, M.B., C.M., Senior Assistant Physician, Royal Asylum, Aberdeen.

1887. Aplin, A., M.R.C.S.E. and L.R.C.P. Lond., Med. Supt., Co. Asylum, Snenton, Nottingham.

1892. Atherstone, Walter H., M.D., Surgeon-Superintendent, Port Alfred Asylum, South Africa.

1875. Atkins, Ringrose, M.A., M.D. Queen's Univ. Ire., Med. Superintendent, District Asylum, Waterford.

1891. Aveline, Henry T. S., M.R.C.S., L.R.C.P., M.P.C., Assistant Medical Officer, Bristol City and County Asylum.

1894. Baily, Percy J., M.B. Edin., Senior Assistant Medical Officer, London County Asylum, Hanwell, W.

1878. Baker, H. Morton, M.B. Edin., Assistant Medical Officer, Leicester Borough Asylum, Leicester.

1888. Baker, John, M.B., 471, Caledonian Road, London, N.

1876. Baker, Robert, M.D. Edin., Visiting Physician, The Retreat, York (PRESIDENT, 1892), 41, The Mount, York.

1890. Barker, Walter H., M.R.C.S. Eng., L.R.C.P. Edin., B.A. Cantab., M.A. Melbourne, Deputy Medical Superintendent, Hospital for the Insane, Kew, Melbourne.

1878. Barton, Jas. Edwd., L.R.C.P. Edin., L.M., M.R.C.S., Medical Superintendent, Surrey County Lunatic Asylum, Brookwood, Woking.

1889. Barton, James Robert, L.R.C.S.I., L.K.C.P.I., and L.M., Senior Assistant Medical Officer, South Yorkshire Asylum, Wadsley, Sheffield.

1895. Barracough, Herbert, M.B., County Asylum, Devizes.

1864. Bayley, J., M.R.C.S., Med. Supt., Lunatic Hospital, Northampton.

1893. Bayley, Joseph Herbert, M.B., C.M. Edin., Assistant Medical Officer, St. Andrew's Hospital, Northampton.

1874. Beach, Fletcher, M.B., F.R.C.P. Lond., formerly Medical Superintendent, Darenth Asylum, Dartford; Winchester House, Kingston Hill, Surrey, and 64, Welbeck Street, W. (*Gen. Secretary 1889-1896.*)

1892. Beadles, Cecil F., M.R.C.S., L.R.C.P., Assistant Medical Officer, Colney Hatch Asylum.

1896. Beamish, George, L.R.C.S.I., L.R.C.P.E., L.M., Med. Officer, H.M. Prison, Liverpool.

1881. Benedikt, Prof. M., Franciskaner Platz 5, Vienna. (*Hon. Member.*)

1872. Benham, H. A., M.D., Medical Superintendent, City and County Asylum, Stapleton, near Bristol.

1894. Bernard, Dr. Walter, District Asylum, Londonderry.

1896. Bianchi, Prof. Leonardo, Manicomio, Provinciale di Napoli. (*Corresponding Member.*)

1865. Biffi, M., M.D., Editor of the Italian *Journal of Mental Science*, 16, Borgo di San Celso, Milan. (*Hon. Member.*)

1861. Bigland, Thomas, M.R.C.S. Eng., L.S.A. Lond., Bigland Hall, Backbarrow, near Ulverston, Lancashire.

1894. Blachford, James Vincent, M.B., B.S. Durham, Assistant Medical Officer, Bristol Asylum, Fishponds, near Bristol.

1883. Blair, Robert, M.D., Medical Superintendent, Woodilee Asylum, Lenzie, near Glasgow.

1893. Blake, Henry, M.B. Lond., Stone House, Great Yarmouth.

1879. Blanchard, E. S., M.D., Medical Superintendent, Hospital for Insane, Charlotte Town, Prince Edward's Island.

1857. Blandford, George Fielding, M.D. Oxon., F.R.C.P. Lond., 48, Wimpole Street, W. (*PRESIDENT, 1877.*)

1894. Blandford, Henry Edmund, M.A., M.D., B.Ch. Univ. Dubl., Portland House, Bedford Park, Croydon.

1888. Blaxland, Herbert, M.R.C.S., Med. Supt., Callan Park Asylum, New South Wales.

1890. Blumer, G. Alder, M.D., Medical Superintendent of the State Hospital for the Insane, Utica, N.Y., U.S.A.

1875. Bodington, George Fowler, M.D. Durh., F.R.C.S. Eng., M.R.C.P. Lond., Med. Supt., Government Asylum for the Insane, Province of British Columbia, Canada.

1892. Bond, Charles Hubert, B.Sc., M.D., Ch.M. Edin., London County Asylum, Banstead, Sutton, Surrey.

1877. Bower, David, M.D. Aberd., Springfield House, Bedford.

1877. Bowes, John Ireland, M.R.C.S. Eng., L.S.A., Medical Superintendent, County Asylum, Devizes, Wilts.

1893. Bowes, William Henry, M.D. Lond., Assistant Medical Officer, Plymouth Borough Asylum, Ivybridge, Devon.

1896. Boycott, A. N., M.D. Lond., M.R.C.S. Eng., L.R.C.P. Lond., Assistant Med. Officer, London County Asylum, Canehill, Purley, Surrey.

1883. Boys, A. H., L.R.C.P. Edin., Chequer Lawn, St. Albans.

1894. Bradburn, James Denham, L.R.C.P., F.R.C.S. Edin., Fair Home, Leamington.

1891. Braine-Hartnell, George, L.R.C.P. Lond., M.R.C.S. Eng., Sen. Assist. Med. Officer, County and City Asylum, Powick, Worcester.

1893. Bramwell, John Milne, M.B., C.M. Edin., 2, Henrietta Street, Cavendish Square, London, W.

1881. Brayn, R., L.R.C.P. Lond., Medical Superintendent, Broadmoor Asylum, Crowthorne, Berks.

1896. Bresler, Johannes, M.D., Irrenanstalt, Freiburg in Silesia, Germany. (*Corresponding Member.*)

1892. Bristow, Hubert Carpenter, M.D. Lond., Wrington, R.S.O., Somerset.

1895. Briscoe, John Frederick, M.R.C.S. Eng., Resident Medical Supt., Westbrooke House Asylum, Alton, Hants.

1864. Brodie, David, M.D. St. And., L.R.C.S. Edin., 12, Patten Road, Wandsworth Common, S.W.

1881. Brosius, Dr., Bendorf-Sayn, near Coblenz, Germany. (*Hon. Member.*)

1876. Browne, Sir J. Crichton, M.D. Edin., F.R.S.E., Lord Chancellor's Visitor, New Law Courts, Strand, W.C. (*Hon. Member.*) (*PRESIDENT, 1878.*)

1891. Bruce, John, M.B., C.M.Ed., M.P.C., 78, Cartergate, Grimsby.

1893. Bruce, Lewis C., M.B. Edin., Assistant Medical Officer, Morningside Asylum, Edinburgh.

1893. Brunton, Walter Reyner, M.B. Durb., Assistant Medical Officer, Borough Asylum, Milton, Portsmouth.

\* Brushfield, Dr., Budleigh Salterton, Devon.

1896. Bubb, William, M.R.C.S., L.R.C.P. Lond., Second Assist. Med. Officer, Worcester County Asylum, Powick, near Worcester.

\* Bucknill, Sir John Charles, M.D. Lond., F.R.C.P. Lond., F.R.S., J.P., late Lord Chancellor's Visitor; Bournemouth. (*Editor of Journal, 1852-62.*) (*PRESIDENT, 1860.*)

1894. Buggy, Louis, L.R.C.S.I., L.M., L.R.C.P.I., Assistant Medical Officer, District Asylum, Kilkenny.

1892. Bullen, Frederick St. John, M.R.C.S. Eng., 10, Pembroke Road, Clifton, Bristol.

1890. Burke, John R., M.D., Deputy Inspector General of Hospitals and Fleets (retired); late Assistant Medical Officer, Central Criminal Asylum, Dundrum, Co. Dublin, Ireland, 22, Gardiners Place, Dublin.

1869. Burman, Wilkie J., M.D. Edin., Ramsbury, Hungerford, Berks.

1891. Caldecott, Charles, M.B., B.S.Lond., M.R.C.S., Rose Cottage, Priestwood, Bracknell, Berks.

1889. Calcott, J. T., M.D., Med. Supt., Borough Asylum, Newcastle-on-Tyne.

1867. Campbell, John A., M.D. Glas., Medical Superintendent, Cumberland and Westmorland Asylum, Garlands, Carlisle.

1880. Campbell, P. E., M.B., C.M., Senior Assist. Medical Officer, District Asylum, Caterham.

1894. Campbell, Alfred Walter, M.D. Edin., Pathologist, County Asylum, Rainhill, near Prescot, Lancashire.

1890. Cameron, James, M.B., C.M. Edin., 13, Fettes Row, Edinburgh.

1874. Cameron, John, M.D. Edin., Medical Supt., Argyll and Bute Asylum, Lochgilphead.

1891. Carswell, John, L.R.C.P. Edin., L.F.P.S. Glas., Certifying Medical Officer, Barony Parish, 5, Royal Crescent, Glasgow.

1881. Case, H., M.R.C.S., Med. Supt., Leavesden, Herts.

1896. Cashman, James, M.B., B.Ch., B.A.O., Royal Univ. Ireland, Assist. Med. Officer, Cork District Asylum.

1874. Cassidy, D. M., M.D., C.M. McGill Coll., Montreal, D.Sc. (Pub. Health), Edin., F.R.C.S. Edin., Med. Superintendent, County Asylum, Lancaster.

1888. Chambers, James, M.D., M.P.C., The Priory, Roehampton.

1887. Chapin, John B., M.D., Pennsylvania Hospital for the Insane, Philadelphia, U.S.A. (*Hon. Member*.)

1865. Chapman, Thomas Algernon, M.D. Glas., L.R.C.S. Edin., late Hereford Co. and City Asylum, Hereford.

1880. Christie, J. W. Stirling, M.D., Med. Supt., County Asylum, Stafford.

1878. Clapham, Wm. Crochley S., M.D., M.R.C.P., The Grange, Rotherham.

1863. Clapton, Edward, M.D. Lond., F.R.C.P. Lond., late Physician, St. Thomas's Hospital, late Visitor of Lunatics for Surrey; 22, St. Thomas's Street, Borough, S.E.

1879. Clark, Archibald C., M.D. Edin., Medical Superintendent, Lanarkshire Asylum, Hartwood, Shotts, N.B.

1879. Clarke, Henry, L.R.C.P. Lond., H.M. Prison, Wakefield.

\* Cleaton, John D., M.R.C.S. Eng., late Commissioner in Lunacy, 19, Whitehall Place, S.W. (*Hon. Member*.)

1867. Clouston, T. S., M.D. Edin., F.R.C.P. Edin., F.R.S.E., Physician Superintendent, Royal Asylum, Morningside, Edinburgh. (*Editor of Journal, 1873-1881.*) (*PRESIDENT, 1888.*)

1879. Cobbold, C. S. W., M.D., Bailbrook House, Bath.

1892. Cole, Robert Henry, M.D. Lond., M.R.C.P. Lond., 53, Upper Berkeley Street, W.

1882. Compton, T. J., M.B., C.M. Aberd., Heigham Hall, Norwich.

1888. Cones, John A., M.R.C.S., Burgess Hill, Sussex.

1895. Conry, John, M.D. Aber., Fort Beaufort Asylum, South Africa.

1878. Cooke, Edwd. Marriott, M.B., M.R.C.S. Eng., Med. Supt., County Asylum, Worcester.

1887. Cope, George P., L.R.C.P.I., M.P.C., 43, Harrington Street, Dublin.

1891. Corner, Harry, M.B. Lond., M.R.C.S., L.R.C.P., M.P.C., Medical Superintendent, Earlswood Asylum, Redhill, Surrey.

1872. Courtenay, E. Maziere, A.B., M.B., C.M.T.C.D., M.D., Inspector of Lunatics in Ireland, Lunacy Office, Dublin Castle. (*Hon. Member 1891, Secretary for Ireland 1876-87.*)

1891. Cowan, John J., M.B., C.M. Edin., Leigh Sinton, Malvern.

1896. Cowan, F. M., M.D., 107, Perpoulier Street, The Hague, Holland. (*Corresponding Member*.)

1893. Cowen, Thomas Phillips, M.B., B.S. Lond., Assistant Medical Officer, County Asylum, Prestwich, Manchester.

1884. Cox, L. F., M.R.C.S., Med. Supt., County Asylum, Denbigh.

1878. Craddock, F. H., B.A. Oxon, M.R.C.S. Eng., L.S.A., Med. Supt., County Asylum, Gloucester,

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1892. Cradock, Samuel, M.R.C.S. Eng., South Hill House, Bath.

1893. Craig, Maurice, M.A., M.B., B.C. Cantab., Assistant Medical Officer, Bethlem Royal Hospital, Southwark.

1894. Crawford, Cyril R., M.R.C.S. Eng., L.R.C.P. Lond., Sussex County Hospital, Brighton.

1894. Cullinan, Henry M., L.R.C.P.I., L.R.C.S.I., Second Assistant Medical Officer, Richmond District Asylum, Dublin.

1884. Curwen, J., M.D., Warren, Pennsylvania State Hospital for the Insane, U.S.A. (*Hon. Member.*)

1869. Daniel, W. C., M.D. Heidelberg., M.R.C.S. Eng., Epsom, Surrey.

1868. Davidson, John H., M.D. Edin., Delamere House, Liverpool Road, Chester.

1874. Davies, Francis P., M.D. Edin., M.R.C.S. Eng., Kent County Asylum, Barming Heath, near Maidstone.

1891. Davis, Arthur N., L.R.C.P., L.R.C.S. Edin., Medical Superintendent, Borough Asylum, Ivybridge, Devon.

1894. Dawson, William R., B.Ch., B.A.O. Univ. TUBL., Assistant Medical Supt., Farnham House Private Asylum, Finglas, Dublin.

1869. Deas, Peter Maury, M.B. and M.S. Lond., Medical Superintendent, Wonford House, Exeter.

1876. Denholm, James, M.D., Meadow Field House, Brandon, Durham.

1896. Dewar, Margaret C., M.B., C.M. Univ. Glasg., late Assist. Med. Officer, Crichton Royal Institution, Dumfries.

1876. Dickson, F. K., F.R.C.P. Edin., Wye House Lunatic Asylum, Buxton, Derbyshire.

1879. Dodds, Wm. J., M.D., D.Sc. Edin., Valkenberg, Mowbray, near Cape Town, South Africa.

1886. Donaldson, R. Lockhart, A.B., M.B., B.Ch. Univ. Dub., M.B., M.P.C., Assistant Medical Officer, District Asylum, Monaghan.

1889. Donaldson, William Ireland, B.A., M.B., B.Ch., Univ. Dublin, Assistant Medical Officer, London County Asylum, Canehill, Purley, Surrey.

1892. Donelan, J. O'C., L.R.C.P.I., L.R.C.S.I., M.P.C., First Assistant Medical Officer, Richmond District Asylum, Dublin.

1891. Douglas, Archibald Robertson, L.R.C.S., L.R.C.P. Edin., Assistant Medical Officer, Royal Albert Asylum, Lancaster.

1890. Douglas, William, M.D. Queen's University, Irel., M.R.C.S. Eng., Medical Officer, Provident Dispensary, Leamington Spa, Dalkeith House, 7, Clarendon Place, Leamington Spa.

\* Down, J. Langdon Haydon, M.D. Lond., F.R.C.P. Lond., late Resident Physician, Earlswood Asylum; 81, Harley St., Cavendish Sq., W., and Normansfield, Hampton Wick.

1884. Drapes, Thomas, M.B., Med. Supt., District Asylum, Enniscorthy, Ireland.

1893. Drury, Arthur, M.B., C.M. Edin., Medical Officer, Halifax Union, Landon House, Halifax.

1880. Dunlop, James, M.B., C.M., 298, Bath Street, Glasgow.

1874. Eager, Reginald, M.D. Lond., M.R.C.S. Eng., Northwoods, near Bristol.

1873. Eager, Wilson, L.R.C.P. Lond., M.R.C.S. Eng., Med. Superintendent, County Asylum, Melton, Suffolk.

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1881. Krafft-Ebing, R. v., M.D., Vienna. (*Hon. Member.*)

1866. Lachr, H., M.D., Schweizer Hof, bei Berlin, Editor of the *Zeitschrift für Psychiatrie*. (*Hon. Member.*)

1896. Laslett, Maurice H., L.R.C.P., Assistant Medical Officer, Somerset and Bath Asylum, Wells.

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1870. Lawrence, A., M.D. County Asylum, Chester.

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1887. Lentz, Dr., Asile d'Aliénés, Tournai, Belgique. (*Hon. Member.*)

1894. Lentagne, John, B.A., F.R.C.S.I., Medical Visitor of Lunatics to the Court of Chancery, 29, Westland Row, Dublin.

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1895. Lindell, Emil Wilhelm, M.D., Gothenburg, Sweden. (*Corresponding Member.*)

1859. Lindsay, James Murray, M.D. St. And., F.R.C.S. and F.R.C.P. Edin., Med. Supt., County Asylum, Mickleover, Derby. (*PRESIDENT, 1893.*)

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1870. McDowall, T. W., M.D. Edin., L.R.C.S.E., Medical Superintendent, Northumberland County Asylum, Morpeth. (*PRESIDENT ELECT.*)

1876. McDowall, John Greig, M.B. Edin., Medical Superintendent, West Riding Asylum, Menston, near Leeds.

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1871. Mickle, Wm Julius, M.D., F.R.C.P. Lond., Med. Superintendent, Grove Hall Asylum, Bow, London. (*PRESIDENT.*)

1867. Mickley, George, M.A., M.B. Cantab., Medical Superintendent, St. Luke's Hospital, Old Street, London, E.C.

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1873. Newington, H. Hayes, M.R.C.P. Edin., M.R.C.S. Eng., Ticehurst, Sussex. (*PRESIDENT, 1889.*) (*Treasurer.*)

1893. Newington, John, L.S.A., Tattlebury House, Goudhurst, Kent.

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1869. Nicolson, David, M.D. and C.M. Aber., late Medical Officer, H.M. Convict Prison, Portsmouth, and State Asylum, Broadmoor; Lord Chancellor's Visitor, New Law Courts, Strand, W.C. (*EX-PRESIDENT.*)

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1886. O'Neill, E. D., L.R.C.P.I., Med. Supt., The Asylum, Limerick.

1868. Orange, William, M.D. Heidelberg, F.R.C.P. Lond., C.B., 12, Lexham Gardens, London. (PRESIDENT, 1883.)

1893. Osburne, Cecil A. P., F.R.C.S. Edin., L.R.C.P. Edin., Surgeon to the Admiralty, Hythe, The Oaks, Hythe, Kent.

1890. Oswald, Landel R., M.B., M.P.C., Medical Superintendent, City of Glasgow District Asylum, Gartcosh, N.B.

\* Palmer, Edward, M.D. St. And., M.R.C.P. Lond., M.R.C.S., 87, Harcourt Terrace, London, S.W.

1886. Parant, M. Victor, M.D., Toulouse. (*Corresponding Member.*)

1893. Paterson, Charles Edward, M.D. Edin., Arnold House, Farnborough, Hants.

1892. Patterson, Arthur Edward, M.B., C.M. Aber., Assistant Medical Officer, City of London Asylum, Dartford.

1872. Patton, Alex., M.B., Resident Medical Superintendent, Farnham House, Finglas, Co. Dublin.

\* Paul, John Hayball, M.D. St. And., M.R.C.P. Lond., F.R.C.P. Edin.; Camberwell Terrace, London, S.E. (*Emeritus Treasurer.*)

1889. Peacock, Dr., L.R.C.P. and L.M. Edin., M.R.C.S. and L.S.A. Lond., Resident Medical Officer and Proprietor, Ashwood House, Kingswinford, Dudley, Staffordshire.

1881. Peeters, M., M.D., Gheel, Belgium. (*Hon. Member.*)

1873. Pedler, George H., L.R.C.P. Lond., M.R.C.S. Eng., 6, Trevor Terrace, Knightsbridge, S.W.

1893. Perceval, Frank, M.R.C.S. Eng., L.R.C.P. Lond., Medical Superintendent, County Asylum, Whittingham, Preston, Lancashire.

1874. Petit, Joseph, L.R.C.S.I., Med. Supt., District Asylum, Sligo.

1878. Philippis, Sutherland Rees, M.D., C.M. Qu. Univ. Irel., F.R.G.S., St. Anne's Heath, Chertsey.

1875. Philipson, George Hare, M.D. and M.A. Cantab., F.R.C.P. Lond., 7, Eldon Square, Newcastle-on-Tyne.

1891. Pierce, Bedford, M.D. Lond., M.R.C.P., Medical Superintendent, The Retreat, York.

1888. Pietersen, J. F. G., M.R.C.S., Ashwood House, Kingswinford, near Dudley, Stafford.

1871. Pim, F., Esq., M.R.C.S. Eng., L.R.C.P. Ireland, Med. Supt., Palmerston, Chapelizod, Co. Dublin, Ireland.

1890. Pitcairn, J. J., L.R.C.P., M.R.C.S., M.P.C., 1, Parkhurst Road, Holloway, N.

1873. Pitman, Sir Henry A., M.D. Cantab., F.R.C.P. Lond., Registrar of the Royal College of Physicians, Enfield, Middlesex. (*Hon. Member.*)

1896. Planck, Charles, M.R.C.S. Eng., L.R.C.P. Lond., M.A. Camb., Assist. Med. Officer, East Sussex County Asylum, Haywards Heath.

1877. Plaxton, Joseph Wm., M.R.C.S., L.S.A. Eng., Lunatic Asylum, Kingston, Jamaica.

1889. Pope, George Stevens, L.R.C.P. & S. Edin., L.F.P. & S. Glas., Assistant Medical Officer, Cane Hill Asylum, Purley, Surrey.

1876. Powell, Evan, M.R.C.S. Eng., L.S.A., Medical Superintendent, Borough Lunatic Asylum, Nottingham.

1891. Price, Arthur, M.R.C.S., L.S.A., M.P.C., Medical Officer H.M. Prison, Birmingham, 2, Handsworth New Road, Birmingham.

1875. Pringle, H. T., M.D. Glasg., Medical Superintendent, County Asylum, Bridgend, Glamorgan.

1894. Rambant, Daniel F., M.D., Univer. Dub., Third Assistant Medical Officer, and Pathologist, Richmond District Asylum, Dublin.

1889. Raw, Nathan., M.D., M.P.C., Royal Infirmary, Dundee.

1893. Rawes, William, M.B. Durh., F.R.C.S. Eng., Assistant Medical Officer, St. Luke's Hospital, London.

1896. Ray, Matthew B., M.B., C.M. Edin., Pathologist and Assist. Med. Officer, West Riding Asylum, Wadsley, Sheffield.

1870. Rayner, Henry, M.D. Aberd., M.R.C.P. Edin., 2, Harley Street, London, W., and Upper Terrace House, Hampstead, London, N.W. (PRESIDENT, 1884.) (*Late General Secretary.*) (*Editor of Journal.*)

1890. Régis, Dr. E., 54, Rue Huguerie, Bordeaux. (*Corresponding Member.*)

1887. Reid, William, M.D., Physician Superintendent, Royal Asylum, Aberdeen.

1891. Renton, Robert, M.B., C.M. Edin., M.P.C., Montague Lawn, London Road, Cheltenham.

1886. Revington, Geo., M.D. and Stewart Scholar Univ. Dublin, M.P.C., Med. Superintendent, Central Criminal Asylum, Dundrum, Ireland.

1889. Richards, Joseph Peeke, M.R.C.S., L.S.A., 6, Freeland Road, Ealing, W.

1869. Richardson, Sir B. W., M.D. St. And., F.R.S., 25, Manchester Square, W. (*Hon. Member.*)

1890. Ritti, Dr. J. M.; Maison Nationale de Charenton, St. Maurice, Seine, France. (*Corresponding Member.*)

1893. Rivers, William H. Rivers, M.D. Lond., St. John's College, Cambridge.

1871. Robertson, Alexander, M.D. Edin., 16, Newton Terrace, Glasgow.

\* Robertson, Charles A. Lockhart, M.D. Cantab., F.R.C.P. Lond., F.R.C.P. Edin., late Lord Chancellor's Visitor, Gunsgreen, The Drive, Wimbledon. (*General Secretary, 1855-62.*) (*Editor of Journal, 1862-70.*) (PRESIDENT, 1867.) (*Hon. Member.*)

1895. Robertson, William Ford, M.B., C.M., Pathologist, Royal Edinburgh Asylum, West House, Morningside Asylum, Edinburgh.

1887. Robertson, G. M., M.B., C.M., M.P.C., Medical Superintendent, Perth District Asylum, Murthley.

1895. Robinson, George Burton, M.B., L.R.C.P., M.R.C.S., London Hospital.

1876. Rogers, Edward Coulton, M.R.C.S. Eng., L.S.A., Co. Asylum, Fulbourn, Cambridge.

1859. Rogers, Thomas Lawes, M.D. St. And., M.R.C.P. Lond., M.R.C.S. Eng., Eastbank, Court Road, Eltham, Kent. (PRESIDENT, 1874.)

1895. Rolleston, Lancelot W., M.B., B.S. Durh., Junior Assistant Medical Officer, Middlesex County Asylum, Tooting, S.W.

1879. Ronaldson, J. B., L.R.C.P. Edin., Medical Officer, District Asylum, Haddington.

1879. Roots, William H., M.R.C.S., Canbury House, Kingston-on-Thames.

1860. Rorie, James, M.D. Edin., L.R.C.S. Edin., Medical Superintendent, Royal Asylum, Dundee. (*Late Hon. Secretary for Scotland.*)

1890. Rosenblum, Edward Emerson, M.B., B.S. Melbourne, Senior Assistant Medical Officer, Lunatic Asylum, Yarra Bend, Melbourne.

1888. Ross, Chisholm, M.B. Ed., M.D. Sydney, Hospital for the Insane, Kenmore, New South Wales.

1886. Roussel, M. Théophile, M.D., Sénateur, Paris. (*Hon. Member.*)

1884. Rowe, E. L., L.R.C.P. Ed., Med. Supt., Borough Asylum, Ipswich.

1883. Rowland, E. D., M.D., C.M. Edin., the Public Lunatic Asylum, Berbice, British Guiana.

1877. Russell, A. P., M.B. Edin., The Lawn, Lincoln.

1883. Russell, F. J. R., L.R.C.P. Irel., Tramore, St. Leonards-on-Sea.

1892. Rutledge, Victor, M.B., District Asylum, Londonderry, Ireland.

1866. Rutherford, James, M.D. Edin., F.R.C.P. Edin., F.F.P.S. Glasgow, Physician Superintendent, Crichton Royal Institution, Dumfries. (*Hon. Secretary for Scotland, 1876-86.*)

1887. Rutherford, W., M.D., Consulting Physician, Ballinasloe District Asylum, Ireland.

1896. Rutherford, Robert Leonard, M.D., Med. Supt., Digby's Asylum, Exeter.

1889. Ruxton, William Ledington, M.D. and C.M., 8, Derwent Place, Newcastle-on-Tyne.

\* Sankey, R. Heurtley H., M.R.C.S. Eng., Medical Superintendent, Oxford County Asylum, Littlemore, Oxford.

1894. Sankey, Edward H. O., M.A., M.B., B.C. Cantab., Resident Medical Licensee, Boreatton Park Licensed House, Baschurch, Salop.

1891. Saunders, Charles Edwards, M.D.Aber., M.R.C.P.Lond., Medical Superintendent, Haywards Heath Asylum, Sussex.

1873. Savage, G. H. M.D. Lond., 3, Henrietta Street, Cavendish Square, W. (late *Editor of Journal.*) (PRESIDENT, 1886.)

1894. Scanlan, William T. A., M.B., M.Ch. B.A.O.R.U.I., Assistant Medical Officer, District Asylum, Cork.

1862. Schofield, Frank, M.D. St. And., M.R.C.S., Medical Supt., Camberwell House, Camberwell.

1887. Schüle, Heinrich, M.D., Illenau, Baden, Germany. (*Hon. Member.*)

1884. Scott, J. Walter, M.R.C.S., M.P.C., Highfield, Tulse Hill, S.W.

1896. Scott, James, M.B., C.M. Edin., Med. Officer, H.M. Prisons, Holloway and Newgate, 3, Parkhurst Road, Holloway, London, N.

1889. Scowcroft, Walter, M.R.C.S., Senior Assistant Medical Officer, Royal Lunatic Hospital, Cheadle.

1880. Seccombe, Geo., L.R.C.P.L., The Colonial Lunatic Asylum, Port of Spain, Trinidad, West Indies.

1879. Seed, Wm., M.B., C.M. Edin., The Poplars, 110, Waterloo Road, Ashton-on-Ribble, Preston.

1889. Sells, Charles John, L.R.C.P., M.R.C.S., L.S.A., White Hall, Guildford.

1893. Semelaigne, René, Dr., Secrétaire des Séances de la Société Médico-Psychologique de Paris, Avenue de Madrid, Neuilly, Seine, Paris. (*Corresponding Member.*)

1882. Seward, W. J., M.D., Med. Superintendent, Colney Hatch, Middlesex.

1896. Shanahan, John Francis, L.R.C.P.I., L.R.C.S.I., 2, The Crescent, Limerick.

1891. Shaw, John Custance, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, Hull Borough Asylum.

1867. Shaw, Thomas C., M.D. Lond., F.R.C.P. Lond., Medical Superintendent, London County Asylum, Banstead, Surrey.

1880. Shaw, James, M.D., Donard House, Kensington, Liverpool.

1891. Shaw, Harold B., B.A., M.B., B.S., D.P.H. Camb., Senior Assistant Medical Officer, Isle of Wight County Asylum, Whitcroft, Newport, I. of W.

1882. Sheldon, T. S., M.B., Med. Supt., Cheshire County Asylum, Parkside, Macclesfield.

1886. Sherrard, C. D., M.R.C.S., Avalon, Eastbourne.

1877. Shuttleworth, G. E., M.D. Heidelberg, M.R.C.S. and L.S.A. Eng., B.A. Lond., late Medical Superintendent, Royal Albert Asylum, Lancaster; Lancaster House, Richmond Hill, Surrey.

1880. Sibbald, John, M.D. Edin., F.R.C.P. Ed., M.R.C.S. Eng., Commissioner in Lunacy for Scotland, 18, Great King Street, Edinburgh. (*Editor of Journal, 1871-72.*) (*Hon. Member.*)

1895. Simpson, Francis, M.R.C.S., L.R.C.P., Assistant Medical Officer, West Riding Asylum, Wakefield.

1889. Simpson, Samuel, M.B. and M.C.H. Dublin, M.P.C., Balieboro', Co. Cavan, Ireland.

1888. Sinclair, Eric, M.D., Med. Supt., Gladesville Asylum, New South Wales.

1870. Skae, C. H., M.D. St. And., Medical Superintendent, Ayrshire District Asylum, Glengall, Ayr.

1894. Skae, Frederick Macpherson Traill, M.B., C.M., M.P.C., Kincardine-on-Forth.

1891. Skeen, James Humphrey, M.B., C.M. Aber., Medical Superintendent, Glasgow District Asylum, Bothwell.

1858. Smith, Robert, M.D. Aberd., L.R.C.S. Edin., Medical Superintendent, County Asylum, Sedgefield, Durham.

1886. Smith, R. Gillies, M.A., B.Sc., M.R.C.S., City Asylum, Gosforth, Newcastle-on-Tyne.

1885. Smith, R. Percy, M.D., B.S., F.R.C.P., M.P.C., Bethlem Hospital, St. George's Road, S.E. (*General Secretary.*)

1884. Smith, W. Beattie, F.R.C.S. Ed., L.R.C.P. Lond., Medical Supt., Hospital for the Insane, Ararat, Victoria.

1892. Smyth, W. Johnson, M.B. Edin., Station Hospital, Rochester Row, Vincent Square, London, S.W.

1881. Snell, Geo., M.D. Aber., M.R.C.S.Eng., Medical Superintendent, Public Lunatic Asylum, Berbice, British Guiana.

1885. Soutar, J. G., Barnwood House, Gloucester.

1875. Spence, J. Beveridge, M.D., M.C. Queen's University, Medical Superintendent, Burntwood Asylum, near Lichfield. (*Registrar.*)

1883. Spence, J. B., M.D., M.C., Asylum for the Insane, Ceylon.

1891. Stansfield, T. E. K., M.B., C.M.Edin., Senior Assistant Medical Officer, London County Asylum, Claybury.

1895. Stanwell, Charles Oliver, L.R.C.P. & S. and L.M. Edin., Senior Assistant Medical Officer, The Retreat, York.

1888. Stearns, H. P., M.D., The Retreat, Hartford, Conn., U.S.A. (*Hon. Member.*)

1894. Stevens, Thomas George, L.R.C.S.I., L.K.Q.C.P.I., Assistant Medical Officer, Central Criminal Asylum, Dundrum, Ireland.

1868. Stewart, James, B.A. Queen's Univ., F.R.C.P. Edin., L.R.C.S. Ireland, late Assistant Medical Officer, Kent County Asylum, Maidstone; Dummer, Sneyd Park, near Clifton, Gloucestershire.

1884. Stewart, Robert S., M.D., C.M., Assistant Medical Officer, County Asylum, Glamorgan.

1887. Stewart, Rothsay C., M.R.C.S., Assist. Med. Officer, County Asylum, Leicester.

1862. Stilwell, Henry, M.D. Edin., M.R.C.S. Eng., Moorcroft House, Hillingdon, Middlesex.

1864. Stocker, Alonzo Henry, M.D. St. And., M.R.C.P. Lond., M.R.C.S. Eng., Medical Superintendent, Peckham House Asylum, Peckham.

1881. Strahan, S. A. K., M.D., Assist. Med. Officer, County Asylum, Berrywood, near Northampton.

1868. Strange, Arthur, M.D. Edin., Medical Superintendent, Salop and Montgomery Asylum, Bicton, near Shrewsbury.

1895. Strapp, Walter Russell, M.B., C.M., late Assistant Medical Officer, District Asylum, Inverness.

1885. Street, C. T., M.R.C.S., L.R.C.P., Haydock Lodge, Ashton, Newton-le-Willows, Lancashire.

1886. Suffern, A. C., M.D., Medical Superintendent, Rubery Hill Asylum, near Bromsgrove, Worcestershire.

1894. Sullivan, W. C., M.D.R.U.I., 74, Oakley Street, Chelsea, London, S.W.

1870. Sutherland, Henry, M.D. Oxon., M.R.C.P. London, 6, Richmond Terrace, Whitehall, S.W.; Newlands House, Tooting Bec Road, Tooting Common, S.W.; and Otto House, 47, Northend Road, West Kensington, W.

1895. Sutherland, John Francis, M.D. Edin., Deputy Commissioner in Lunacy, 23, Rutland Square, Edinburgh.

1868. Swain, Edward, M.R.C.S., Medical Superintendent, Three Counties' Asylum, near Hitchin, Herts.

1877. Swanson, George J., M.D. Edin., Lawrence House, York.

1881. Tamburini, A., M.D., Reggio-Emilia, Italy. (*Hon. Member.*)

1857. Tate, William Barney, M.D. Aberd., M.R.C.P. Lond., M.R.C.S. Eng., Med. Supt. of the Lunatic Hospital, The Coppice, Nottingham.

1890. Telford-Smith, Telford, M.A., M.D., Medical Superintendent, Royal Albert Asylum, Lancaster.

1892. Temple, Lewis Dunbar, M.B., C.M.Edin., late Clinical Assistant, Darenth Asylum, Ballantrae, Ayrshire.

1888. Thomas, E. G., Park House, Caterham, Surrey.

1880. Thomson, D. G., M.D., C.M., Med. Supt., County Asylum, Thorpe, Norfolk.

1896. Townsend, Arthur, M.R.C.S. Eng., L.R.C.P. Lond., Assist. Med. Officer, Hospital for Insane, Barnwood House, Gloucester.

1866. Tuke, John Batty, M.D. Edin., 20, Charlotte Square, Edinburgh. (*Hon. Secretary for Scotland, 1869-72.*)

1888. Tuke, John Batty, Junior, M.B., C.M., M.R.C.P.E., Resident Physician, Saughton Hall, Edinburgh.

1881. Tuke, Charles Molesworth, M.R.C.S.E., Chiswick House, Chiswick.

1885. Tuke, T. Seymour, M.B., B.Ch. Oxford, M.R.C.S.E., Chiswick House, Chiswick; and 37, Albemarle Street, Piccadilly, W.

1877. Turnbull, Adam Robert, M.B., C.M. Edin., Medical Superintendent, Fife and Kinross District Asylum, Cupar. (*Hon. Secretary for Scotland.*)

1889. Turner, Alfred, M.D. and C.M., Assistant Medical Officer, West Riding Asylum, Menston, Yorkshire.

1890. Turner, John, M.B., C.M. Aber., Senior Assistant Medical Officer, Essex County Asylum.

1878. Urquhart, Alexr. Reid, M.D., F.R.C.P.E., Physician Supt., James Murray's Royal Asylum, Perth. (*Editor of Journal.*) (*Hon. Sec. for Scotland 1886-1894.*)

1894. Vincent, William James, M.B. Durh., Assistant Medical Officer, Borough Asylum, Nottingham.

1881. Virchow, Prof. R., University, Berlin. (*Hon. Member.*)

1881. Voisin, A., M.D., 16, Rue Séguin, Paris. (*Hon. Member.*)

1876. Wade, Arthur Law, B.A., M.D. Dub., Med. Supt., County Asylum, Wells, Somerset.

1884. Walker, E. B. C., M.B., C.M. Edin., Assist. Med. Officer, County Asylum, Haywards Heath.

1896. Walker, William F., L.R.C.S. and L.M. Edin., L.S.A. Lond., Co-Proprietor and Licensee, Home for Inebriates, Street Court, Kingsland, R.S.O., Herefordshire.

1877. Wallace, James, M.D., Visiting Medical Officer, Parochial Asylum, Greenock.

1876. Wallis, John A., M.D. Aberd., L.R.C.P. Edin., Commissioner in Lunacy, 19, Whitehall Place, S.W.

1883. Walmsley, F. H., M.D., Medical Supt., Darenth Asylum, Dartford, Kent.

1892. Ward, Dr., The Asylum, Ballinasloe, Ireland.

1871. Ward, J. Bywater, B.A., M.D. Cantab., M.R.C.S. Eng., Medical Superintendent, Warneford Asylum, Oxford.

1889. Warnock, John, M.D., C.M., B.Sc., M.R.C.S., Sanitary Department, Ministry of Interior, Cairo, Egypt.

1895. Waterson, Jane Elizabeth, M.D. Brussels, L.R.C.P.I., L.R.C.S. Edin., Official Visitor, Cape Town District Lunatic Asylums, Cape Town, South Africa.

1891. Watson, George A., M.B., C.M. Edin., M.P.C., Senior Assistant Medical Officer, City Asylum, Birmingham.

1885. Watson, William Riddell, L.R.C.S. & P. Edin., Govan District Asylum, Hawkhead, Paisley.

1880. Weatherly, Lionel A., M.D., Bailbrook House, Bath.

1880. West, Geo. Francis, L.R.C.P. Edin., Assist. Med. Officer, District Asylum, Omagh, Ireland.

1872. Whitcombe, Edmund Banks, M.R.C.S., Medical Supt., Winson Green Asylum, Birmingham. (PRESIDENT, 1891.)

1884. White, Ernest, M.B. Lond., M.R.C.P., City of London Asylum, Stone, Dartford, Kent.

1889. Whitwell, James Richard, M.D. and C.M., Assistant Medical Officer, West Riding Asylum, Menston, near Leeds.

1883. Wiglesworth, J., M.D. Lond., Rainhill Asylum, Lancashire.

1895. Wilcox, Arthur William, M.B., C.M. Edin., Second Assistant Medical Officer, County Asylum, Hatton, Warwick.

1887. Will, Jno. Kennedy, M.B., C.M., M.P.C., Bethnal House, Cambridge Road, E.

1862. Williams, S. W. Duckworth, M.D. St. And., L.R.C.P. Lond., Chislehurst, Marlboro' Road, Bournemouth.

1893. Wills, Ernest, M.D. Lond., M.R.C.P. Lond., Second Assistant Medical Officer, London County Asylum, Claybury.

1890. Wilson, George R., M.B., C.M., M.P.C., Medical Superintendent, Mavisbank Asylum, Polton, Midlothian.

1896. Wilson, Robert, M.B., C.M. Glas., Nailsworth, Gloucestershire.

1885. Wilson, G. V., M.D., Assist. Med. Officer, District Asylum, Cork.

1895. Wilson, James, M.A., M.B., C.M., Assistant Medical Officer, Wilts County Asylum, Devizes.

1875. Winslow, Henry Forbes, M.D. Lond., M.R.C.P. Lond., 14, York Place, Portman Square, London, and Hayes Park, Hayes, near Uxbridge, Middlesex.

1869. Wood, T. Outterson, M.D., M.R.C.P. Lond., F.R.C.P., F.R.C.S. Edin., 40, Margaret Street, Cavendish Square, W.

1894. Wood, Guy Mills, M.B. Durh., Assistant Medical Officer, County Asylum, Rainhill, near Prescot, Lancashire.

1873. Woods, Oscar T., M.B., M.D. (Dub.), L.R.C.S.I., Medical Superintendent, District Asylum, Cork. (*Hon. Secretary for Ireland.*)

1885. Woods, J. F., M.R.C.S., Med. Supt., Hoxton House, N.  
1877. Worthington, Thos. Blair, M.A., M.B., and M.C. Trin. Coll., Dublin, Med. Supt., County Asylum, Knowle, Fareham, Hants.  
1865. Wyatt, Sir William H., J.P., Chairman of Committee, County Asylum, Colney Hatch, 88, Regent's Park Road. (*Hon. Member.*)  
1862. Yellowlees, David, M.D. Edin., F.F.P.S. Glasg., LL.D., Physician Superintendent, Royal Asylum, Gartnavel, Glasgow. (PRESIDENT, 1890).  
1882. Young, W. M., M.D., Assist. Med. Officer, County Asylum, Melton, Suffolk

ORDINARY MEMBERS	...	...	...	...	...	472
HONORARY MEMBERS	...	...	...	...	...	40
CORRESPONDING MEMBERS	...	...	...	...	...	11
Total	...	...	...	...	...	523

*Members are particularly requested to send changes of address, etc., to Dr Percy Smith, the Honorary Secretary, 11, Chandos Street, Cavendish Square, London, W., and in duplicate to the Printers of the Journal, South Counties Press Limited, Lewes, Sussex.*

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List of those who have passed the Examination for the Certificate of Efficiency in Psychological Medicine, entitling them to append M.P.C. (Med. Psych. Certif.) to their names.

Adamson, Robert O.	Cox, Walter H.
Adkins, Percy.	Craig, M.
Ainley, Fred Shaw.	Cram, John.
Ainsie, William.	Cross, Edward John
Alexander, Edward H.	Cruickshank, George
Anderson, John.	Cullen, George M.
Anderson, A. W.	Dalgetty, Arthur B.
Anderson, Bruce Arnold.	6 Lawson, W. R.
Andrieson, W.	Davidson, William.
Armour, E. F.	Davidson, Andrew.
Attegalle, J. W. S.	De Silva, W. H.
Aveline, H. T. S.	Distin, Howard.
Ballantyne, Harold S.	Drummond, Russell J.
Barbour, William	Donald, Wm. D. M.
Barker, Alfred James Glanville.	Donaldson, R. L. S.
Begg, William.	Donellan, James O'Conor.
Belben, F.	Douglas, A. R.
Bird, James Brown.	Eames, Henry Martyn.
Blachford, J. Vincent.	Earls, James H.
Black, Robert S.	Eden, Richard A. S.
Black, Victor.	Edgerley, S.
Blandford, Henry E.	Edwards, Alex. H.
Bond, C. Hubert.	Elkins, Frank A.
Bond, R. St. G. S.	Ellis, Clarence J.
Bowlan, Marcus M.	English, Edgar.
Boyd, James Paton.	Eustace, J. N.
Bristowe, Hubert Carpenter.	Eustace, Henry Marcus.
Brodie, Robert C.	Evans, P. C.
Brough, C.	Ewan, John A.
Bruce, John.	Ezard, Ed. W.
Bruce, Lewis C.	Farquharson, Wm. Fredk.
Brush, S. C.	Fennings, A. A.
Bullock, William.	Ferguson, Robert.
Cameron, James.	Fitzgerald, Gerald
Campbell, Alfred W.	Fraser, Thomas.
Campbell, Peter.	Fraser, Donald Allan.
Calvert, William Dobree.	Frederick, Herbert John
Carmichael, W. J.	Fox, F. G. T.
Carruthers, Samuel W.	Gaudin, Francis Neel.
Carter, Arthur W.	Gawn, Ernest K.
Chambers, James.	Gemmell, William.
Chapman, H. C.	Genney, Fred. S.
Christie, William.	Giles, A. B.
Clarke, Robert H.	Gill, J. Macdonald.
Coles, Richard A.	Goldie, E. M.
Collie, Frank Lang.	Goodall, Edwin.
Collier, Joseph Henry.	Graham, F. B.
Conolly, Richard M.	Graham, Dd. James.
Cooper, Alfred J. S.	Grainger, Thomas.
Cope, George Patrick.	Grant, J. Wemyss.
Conry, John.	Grant, Lacklan.
Corner, Harry.	Gray, Alex. C. E.
Couper, Sinclair.	Griffiths, Edward H.
Cowan, John J.	Hall, Henry Baker.
Cowie, C. G.	Halsted, H. C.
Cowie, George.	Haslam, W. A.
Cowper, John.	Hassell, Gray.

Hector, William.  
 Henderson, Jane B.  
 Henderson, P. J.  
 Hennan, George.  
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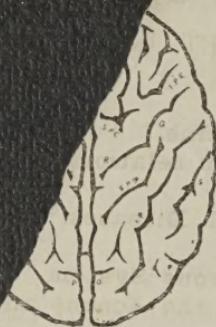
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